COMMUTE PROFILE 1999

A SURVEY OF SAN FRANCISCO BAY AREA COMMUTE PATTERNS

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This report was prepared as part of the Metropolitan Transportation Commission's Regional Ridesharing Program.

A MESSAGE FROM THE EXECUTIVE DIRECTOR

RIDES for Bay Area Commuters' seventh edition of *Commute Profile* offers good news for the region. Among its findings, the percentage of drive-alone commuters decreased nearly five percent since last year and carpooling and transit use increased.

Additionally, *Commute Profile 1999* shows, without a doubt, carpool lanes are motivating commuters to share the ride. According to the survey, nearly 65 percent of commuters who currently use the diamond lanes would not continue to carpool or vanpool if the lanes were eliminated.

The Bay Area's transportation system has a mode for everyone. *Commute Profile*'s insight into the motivations of commuters may help us design new ways to more efficiently manage our transportation system. We welcome your comments.

Sincerely,

Catherine L. Wasikowski

Catherine L. Wasikowski
Executive Director
RIDES for Bay Area Commuters, Inc.

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Section 1

REGIONAL REPORT

INTRODUCTION

This section describes Commute Profile's *history and methodology.*

In April 1999, RIDES for Bay Area Commuters, which operates the Bay Area's Transportation Demand Management program under contract to the Metropolitan Transportation Commission (MTC), conducted its seventh *Commute Profile* survey. *Commute Profile* is an annual region-wide telephone survey of commuters. The study is designed as a market research tool to help RIDES and others better understand Bay Area commute patterns. *Commute Profile* is unique among Bay Area surveys in that it focuses on commuters, their current travel behavior and trends.

IN APRIL 1999, RIDES FOR BAY AREA COMMUTERS...CONDUCTED ITS SEVENTH COMMUTE PROFILE SURVEY...AN ANNUAL REGION-WIDE TELEPHONE SURVEY OF COMMUTERS...COMMUTE PROFILE IS UNIQUE...IT FOCUSES ON COMMUTERS, THEIR CURRENT TRAVEL BEHAVIOR AND TRENDS.

COMMUTE PROFILE 99

To track commute trends over time, *Commute Profile* has retained a group of core questions. The core questions include:

- Commute Modes
- Factors in Commute Mode Choice
- Travel Conditions
- Commute Distance and Time
- Availability of Free Parking
- Employer Involvement
- Awareness of Options to Driving Alone
- Awareness of RIDES and other TDM Service Providers
- Demographic Information

Additional questions on matters such as public policy, employer assistance, availability of home computers, etc. are rotated each year depending on current interest of RIDES, MTC, and others who participate in the planning of *Commute Profile*. These rotating blocks of questions add an important element of flexibility to the study. This year's survey has a series of questions on awareness and use of high occupancy vehicle (HOV) facilities and use of the Internet for travel decisions.

METHODOLOGY

The target population for *Commute Profile* is adults over the age of 18 who are employed full-time (35 hours or more) outside the home. This group is the primary customer for RIDES' services and approximates the journey-to-work subgroup from the Census. The Census, however, includes part-time workers, students and people who work at home—making the data sets not fully compatible.

The sample size for *Commute Profile* has varied from year to year as a result of budget considerations (Table 1). Larger sample sizes allow for more accurate regional data and for data that are meaningful at the county level. The 1999 survey has the largest overall sample size to date.

Between March 22 and April 28, 1999, a market research consultant administered telephone surveys to 3,628 Bay Area residents. Phone numbers were randomly generated, and calls were

Table 1

COMMUTE PROFILE HISTORICAL SUMMARY

Year	Completed Questionnaires	Counties with Full Sample	Direct Costs Budget[1]
1992	1,600	1	$22,245
1993	2,800	6	$40,325
1994	3,200	7	$44,600
1995	1,090	2	$11,844
1996	3,450	8	$41,152
1998	1,608	2	$19,000
1999	3,628	9	$42,000

[1]*This is the budget for acquiring the sample, conducting the telephone interviews and delivering a clean data set. It does not include questionnaire design, analysis and report preparation—RIDES staff time for these tasks is approximately three months (0.25 FTE).*
[2]*Population estimates are based on 1990 Census.*

made in the evenings or on weekends. The interviews were divided between counties as shown in Table 2. For the county-level analysis, the original data are used. This provides the maximum sample size of each county. For region-wide analysis, a weighted data set is used. The weighting is based on employed residents per county (Table 2).

Commute Profile data are based on samples and, as with any sample, some of the year-to-year fluctuations are due to normal sampling error. County populations, based on employed residents, vary from 51,000 (Napa) to 796,000 (Santa Clara)[2]. The samples of approximately 400 from each county have a normal sampling error of five percent and a confidence level of 95 percent associated with them. The region-wide population, based on employed residents, is estimated to be 3,100,000. The regional sample of approximately 3,600 has a normal sampling error rate of two percent and a confidence level of 98 percent associated with it. A two percent sampling error means that if the survey was conducted 100 times, one would be confident that 98 times out of 100, the characteristics of the sample would reflect the characteristics of the population within plus or minus two percent. ✦

Table 2

DISTRIBUTION OF INTERVIEWS BY COUNTY

County	Number of Completed Interviews	Weighting Factor for Regional Analysis
Alameda	403	1.84
Contra Costa	406	1.16
Marin	400	0.36
Napa	400	0.15
San Francisco	400	1.12
San Mateo	411	1.00
Santa Clara	403	2.35
Solano	400	0.47
Sonoma	405	0.54
Total	**3,628**	

HOW BAY AREA RESIDENTS COMMUTE

This section discusses primary commute mode, secondary commute modes, duration of mode use, carpool dynamics, commute distance and time, carpool lane use and telecommuting.

PRIMARY COMMUTE MODE

Driving alone continues to be the dominant form of commute transportation in the Bay Area. Over 66% of commuters make the daily trek to work by themselves in their vehicle (Figure 1). The next most commonly used mode is carpooling—over 14% of respondents carpool to work each day. Buses and BART are the next most used commute modes at 7.2% and 5.1% respectively. The Bay Area's newest transit service, the Altamont Commuter Express (ACE), was included in the list of primary modes for the first time.

The percentage of respondents who reported telecommuting as their primary mode increased significantly from last year. In 1998, only 0.2% reported telecommuting as their primary mode—that number jumped to 1.1% in 1999. The 1999 number is closer to, but still higher than, the 0.7% telecommuting in 1996. Bicycle commuters and walkers both rebounded from unusually low levels

[3]*"Other" refers to motorcycles, taking a taxicab to work, and a few miscellaneous responses.*
[4]*In 1998 the methodology used to classify carpoolers was changed. Only those drivers who had passengers three or more days a week were classified as carpools. In earlier editions, the definition was more ambiguous which resulted in some additional respondents being classified as carpoolers. Consequently, carpool estimates for years prior to 1998 are somewhat inflated.*

reported in 1998. In 1998, bicycle commuters were at 0.8% and walkers at 1.6%. These rates were most likely low because of the very wet weather immediately preceding the 1998 survey. However, they are still below levels measured in 1996 when bicycle commuting was at 1.6% and walking at 2.8%.

Although driving alone continues to be the dominant form of commuting, the percentage of drive-alone commuters has dropped by almost 5% in the last year (Figure 2). Carpooling is up slightly, but the success story appears to be transit—its use is up by over 3%. The 14% transit market share is the highest recorded to date in a *Commute Profile* survey. The use of "other" modes, which includes walking, telecommuting and biking, is up from the previous year, when wet weather had a strong influence on mode choice, but still below earlier years.

...THE PERCENTAGE OF DRIVE-ALONE COMMUTERS HAS DROPPED ALMOST 5%...SUCCESS STORY APPEARS TO BE TRANSIT—ITS USE IS UP BY OVER 3%.

In 1998, there was a change made in the methodology used to classify carpools; it is explained in detail in the 1998 report.[4] The impact of this

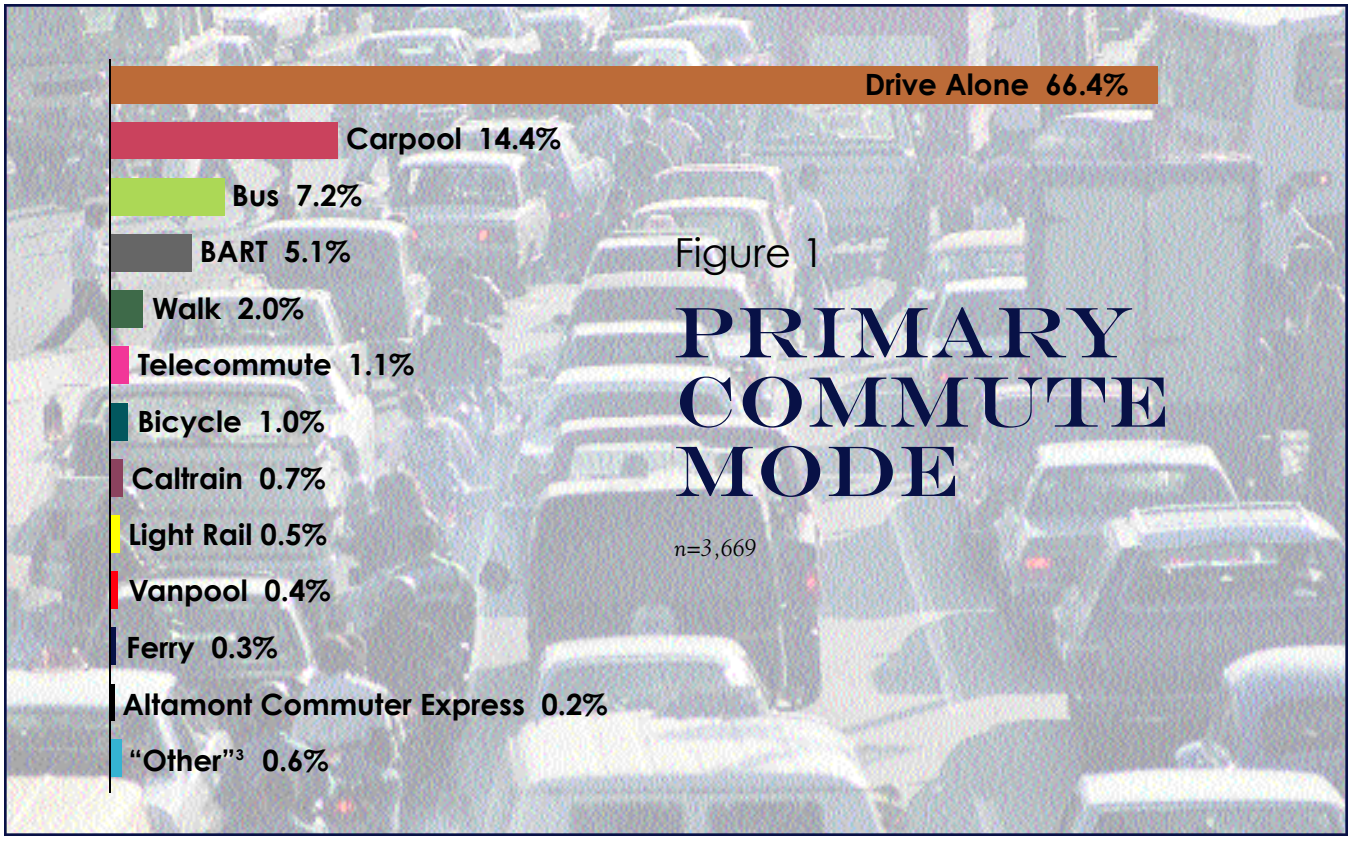
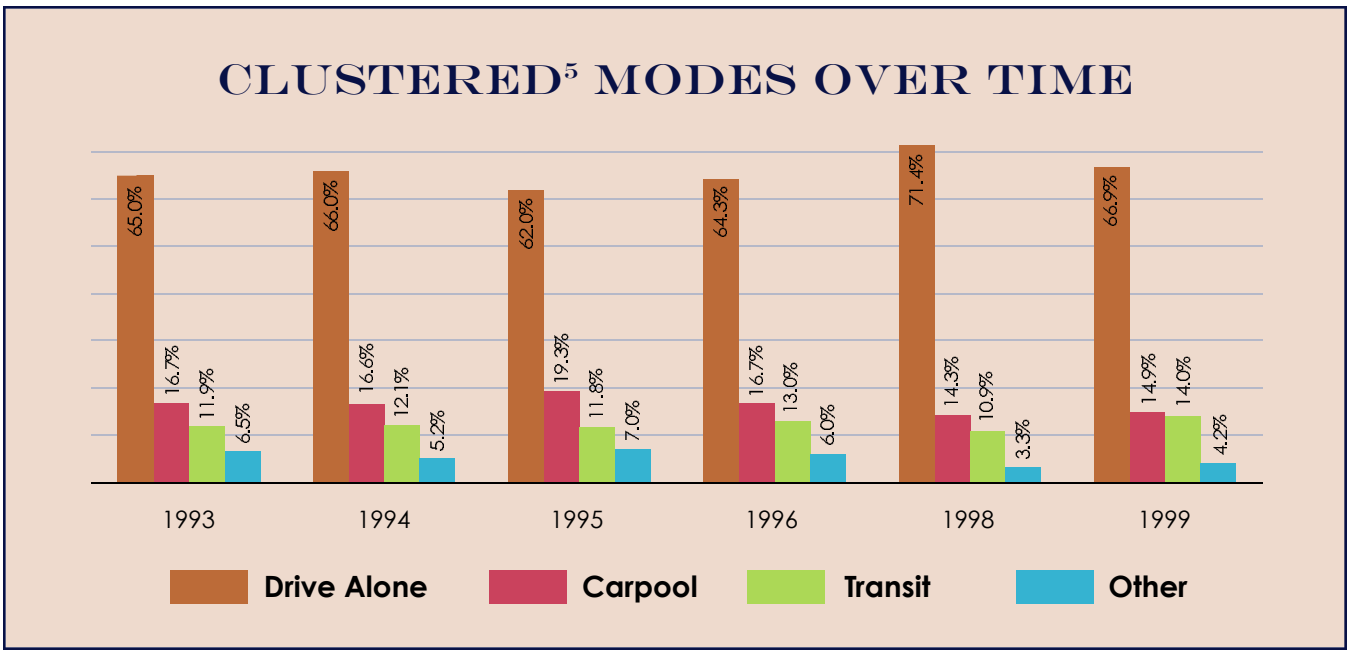


Figure 1

PRIMARY COMMUTE MODE

n=3,669

Figure 2



change is a shift of about two percentage points from carpooling to driving alone. If one were to add that two percent to the drive-alone rate for years prior to 1998, it would make the current drive-alone rate approximately equal to where it was in 1996 but below 1993 and 1994.

It is difficult to explain these year-to-year fluctuations with certainty. There have been a number of transit improvements, such as the BART extensions and the new ACE train service, the I-80 HOV lane has opened, weather patterns influence travel behavior, and gas prices were unusually high at the time of the survey. Within the transit category the biggest increase was in the bus group—it increased from 4.8% in 1998 to 7.2% in 1999. These factors, and potentially others, most likely contributed to the fluctuations identified here.

County Comparisons

Commuters who live in San Francisco are least likely to drive alone to work (Figure 3). Commuters who live in Santa Clara are the most likely to drive alone. Solano County residents have the highest incidence of carpool use while San Francisco commuters have the lowest carpool use and the highest transit use. Napa and Sonoma counties—the Bay Area's most rural counties—have the least number of residents using transit.

SECONDARY MODE

Most respondents (95.5%) use the same mode each day they commute. A relatively small number (4.5%) of respondents use a secondary mode on a regular basis (i.e., one or more days a week). Table 3 shows that driving alone is the most popular secondary mode, followed by carpooling and telecommuting.

The most popular secondary mode for commuters who normally drive alone is carpooling; transit is their second most popular back-up mode. The

[5]*"Drive Alone" includes motorcycles and taxis; "carpool" includes vanpools; "transit" includes buses, trains and ferryboats, and "other" includes bike, walk, and telecommute.*

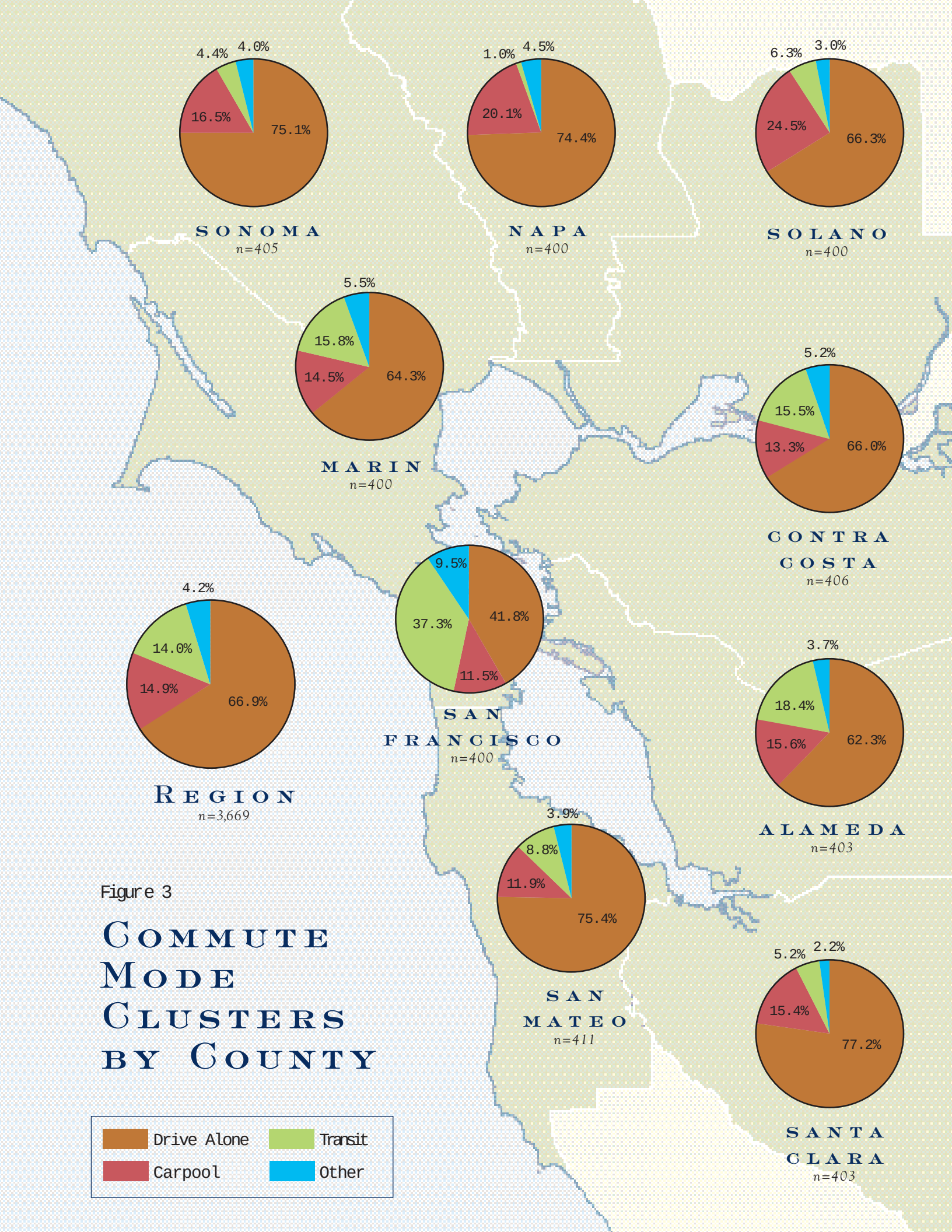


Figure 3

Commute Mode Clusters by County

Table 3

SECONDARY COMMUTE MODES	
Mode	
Drive Alone	35.7%
Carpool	18.1%
Telecommute	11.7%
BART	8.2%
Walk or Jog	7.0%
Bus	4.7%
Vanpool	2.9%
Bicycle	2.3%
Light Rail	2.3%
Caltrain	2.3%
Motorcycle	1.2%
Ferry	0.6%
Other	3.0%
n=164	

reverse is true for carpoolers, transit riders and "other" mode users; driving alone is their most common secondary mode (Table 4).

Table 5

DURATION OF CURRENT MODES (IN YEARS)				
	Drive Alone	**Transit**	**Other**	**Carpool**
1999	10.8	6.4	4.9	3.8
1998	13.3	5.7	4.7	2.5

DURATION OF MODE USE

The 1999 *Commute Profile* survey was the second time respondents were asked how long they have been using their current mode; this question was asked for the first time in *Commute Profile 1998*. Commuters who drive alone exhibit the greatest "brand loyalty" to their mode of travel; they have been driving alone to work for an average of 10.8 years (Table 5). Transit users had the second longest duration at 6.4 years. "Other" mode users were next at 4.9 years, and carpoolers had the shortest duration at 3.8 years. Since carpooling requires multiple participants, it is not surprising that users of that mode have the highest turnover rate. Compared with last year, the relative positions are the same for each mode (i.e., drive alone longest, transit users second, "other" mode users third and carpoolers the shortest), but the high and low ends are less extreme.

CARPOOL DYNAMICS

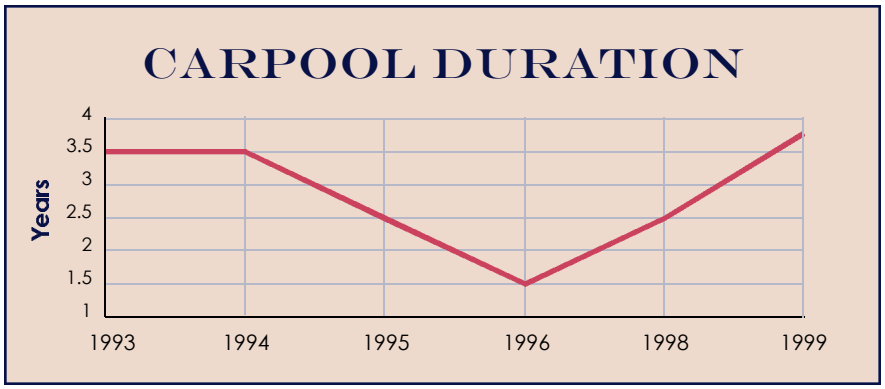
Although data on duration for users of all modes was collected for the first time in 1998, *Commute Profile* has been collecting data on carpool duration since 1993. Estimates have varied considerably from year-to-year from a low of 1.5 years in 1996 to a high of 3.8 in 1999 (Figure 4). The average of all years combined is approximately 2.8 years.

Most Bay Area carpools (61.7%) have two occupants; the average carpool size (including the driver) is 2.46 occupants. This is the same as 1998 but a little below the 1996 survey, in which the average occupancy was 2.75.

Table 4

SECONDARY MODE (Y AXIS) BY PRIMARY MODE (X AXIS)				
Primary Mode →	**Drive Alone**	**Car/Vanpool**	**Transit**	**Other**
Drive Alone		54.8%	46.7%	64.7%
Car/Vanpool	42.6%	7.1%	15.6%	11.8%
Transit	20.4%	33.3%	8.9%	5.9%
Telecommute	18.5%	4.8%	13.3%	5.9%
Other	18.5%	0%	15.6%	11.8%
n=	*55*	*43*	*48*	*17*

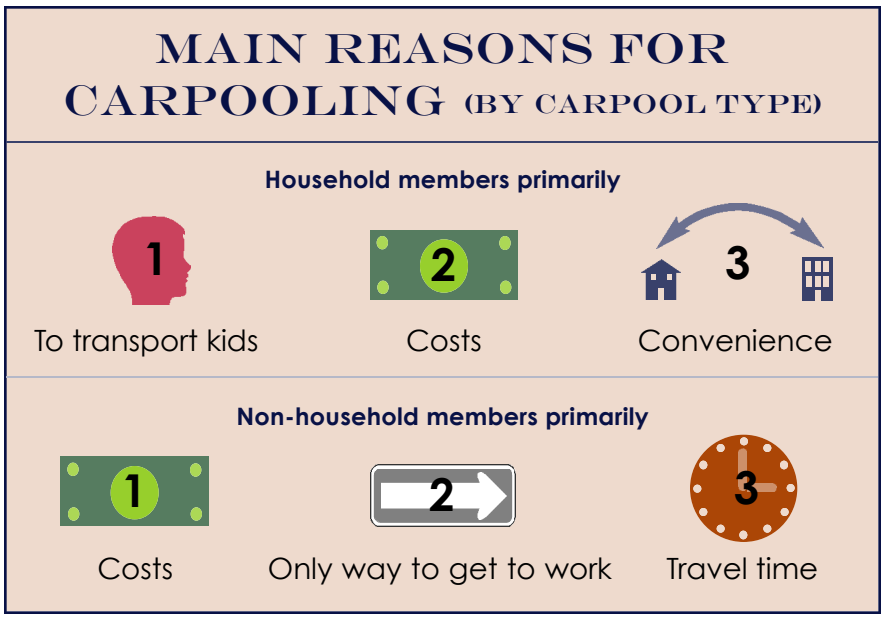
Figure 4



The largest portion of respondents (40%) indicated they carpooled with members of the same household. Co-workers were a close second—36.5% of carpools include individuals from work. This is the reverse of last year when co-workers were the most common and household members the second most common. The next most common arrangement (9.5%) was with friends or neighbors, while 6.3% of carpools included relatives who did not live in the same household.

It is interesting to note the differences in reasons given for carpooling between carpools that include family members and those that do not (Figure 5). Keeping commute costs down appeared in the top three choices of both groups. The top reason for carpools composed of primarily household members was to transport kids (adults who drive with children three or more days a week are classified as carpoolers). Appearing in the top three for carpools composed of primarily non-household members was travel time.

Figure 5

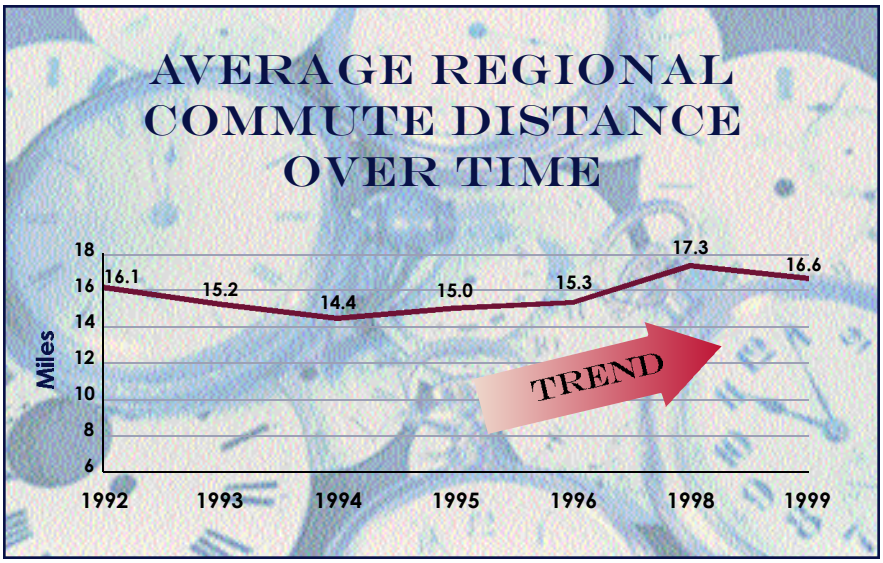


THE AVERAGE ONE-WAY COMMUTE DISTANCE DECREASED...TO 16.6 MILES...

COMMUTE DISTANCE

The average one-way commute distance decreased from 17.3 miles in 1998 to 16.6 miles in 1999 (Figure 6). This drop is partially related to an increased number of telecommuters participating in the survey. If the telecommuting level had stayed the same the distance would be at 16.9 miles—still a slight drop from last year. The trend, despite the small dip in 1999, is still one of slightly increasing commute distances since 1993.

Figure 6



OVER A QUARTER OF BAY AREA COMMUTERS TRAVEL LESS THAN FIVE MILES TO WORK...DRIVE-ALONE RATE IS LOWEST AMONG SHORT DISTANCE COMMUTERS.

Over a quarter of Bay Area commuters travel less than five miles to work. Long distance commuters (41-plus miles) are still the smallest segment of the commute market. Overall there have not been significant changes in the percentages of commuters in the mileage groupings shown in Table 6. However, the percentage of commuters traveling 0-5 miles has been on a downward trend since 1993.

The drive-alone rate is lowest among short distance commuters (Figure 7). This group has the highest "other" rate, which includes options such as biking and walking. The short distance commuters also have the highest level of transit usage. Carpooling is highest among commuters who travel 41-plus miles. Despite the differences noted above, the variation between groups is not great. Commuters in the 6-10 mile range are most likely to drive alone, although

Table 6

COMMUTE DISTANCE OVER TIME

One-Way Miles	1992	1993	1994	1995	1996	1998	1999
0-5 Miles	29.0%	35.4%	36.3%	33.8%	32.7%	25.1%	27.6%
6-10 Miles	18.3%	18.8%	18.1%	18.6%	20.0%	20.2%	19.8%
11-20 Miles	26.0%	21.9%	23.4%	24.9%	24.6%	27.5%	26.1%
21-40 Miles	20.4%	16.9%	16.8%	15.2%	16.1%	20.7%	19.0%
41+ Miles	6.3%	7.0%	5.4%	7.6%	6.6%	6.5%	7.5%
n=	*1,600*	*2,782*	*3,201*	*400*	*3,188*	*1,171*	*3,572*

Figure 7

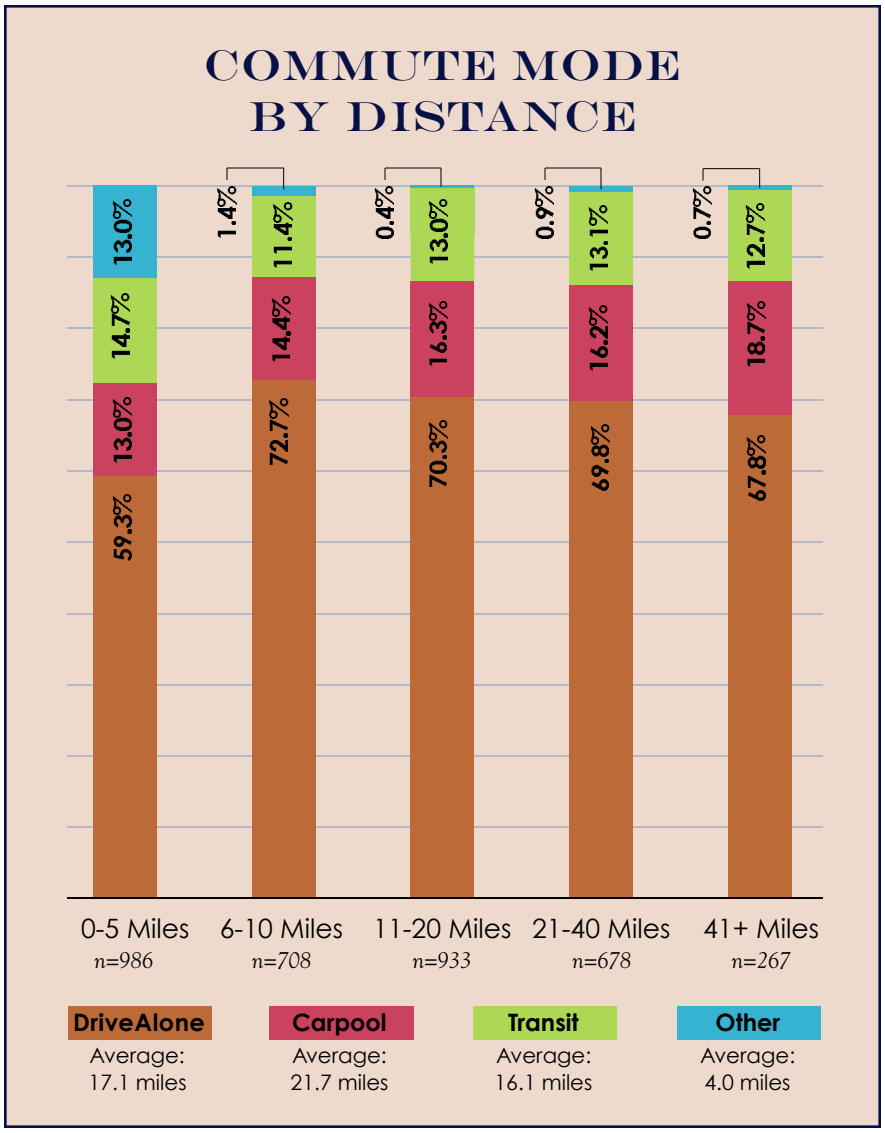


Table 7

AVERAGE ONE-WAY COMMUTE DISTANCE BY COUNTY OF RESIDENCE

County	1996	1999
Solano	23.1	26.6
Sonoma	19.0	21.2
Contra Costa	19.3	20.7
Napa	19.0	19.3
Alameda	15.7	17.4
Marin	15.7	17.4
San Mateo	15.7	15.1
Santa Clara	13.8	14.0
San Francisco	9.1	11.4

the difference between this group and the higher ranges is relatively small.

County Comparisons

Residents of Solano County, on the average, travel more than twice the distance (26.6 miles) to work as residents of San Francisco (11.4 miles) and almost twice the distance of Santa Clara County commuters (14.0 miles).

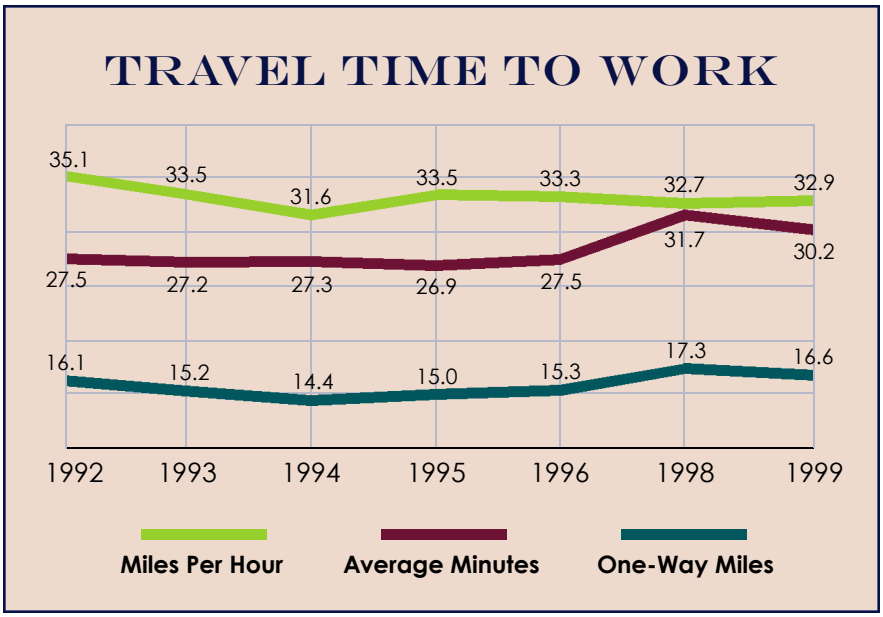
The last *Commute Profile* survey to collect data on individual counties was conducted in 1996. The counties with the longest and shortest commutes have not changed over the past three years (Table 7).

Solano County, which has the longest commute distance, has increased the most over the past three years. Santa Clara County commute distances have remained virtually unchanged. Only San Mateo County residents have been able to decrease their average commute distances—although by only a half-mile.

COMMUTE TIME

The average number of minutes it takes to travel to work decreased slightly from last year but is up from earlier years (Figure 8). Travel distance, as noted above, also decreased

Figure 8



from 1998. The result is little change in travel speed.

County Comparisons

Solano County commuters have the longest commutes, but they travel at the fastest average speed. San Francisco commuters, on the other hand, have the shortest commute and travel at the slowest speed (Table 8).

Table 8

TRAVEL SPEED BY COUNTY

County	Distance	Time	MPH
Solano	26.6	35.4	45.1
Napa	19.3	25.9	44.7
Sonoma	21.2	32.0	39.8
Contra Costa	20.7	34.9	35.6
San Mateo	15.1	27.3	33.2
Santa Clara	14.0	25.9	32.4
Alameda	17.4	32.6	32.0
Marin	17.4	34.3	30.4
San Francisco	11.4	29.0	23.6

CARPOOL LANE USE

Forty-two percent of respondents indicated there was a carpool lane along their route to work. This is almost identical to last year. Commuters in Marin (57%) and Santa Clara (54%) are most likely to have carpool lanes along their commute, and commuters in Napa (20%) and San Francisco (21%) are least likely to have carpool lanes along their route.

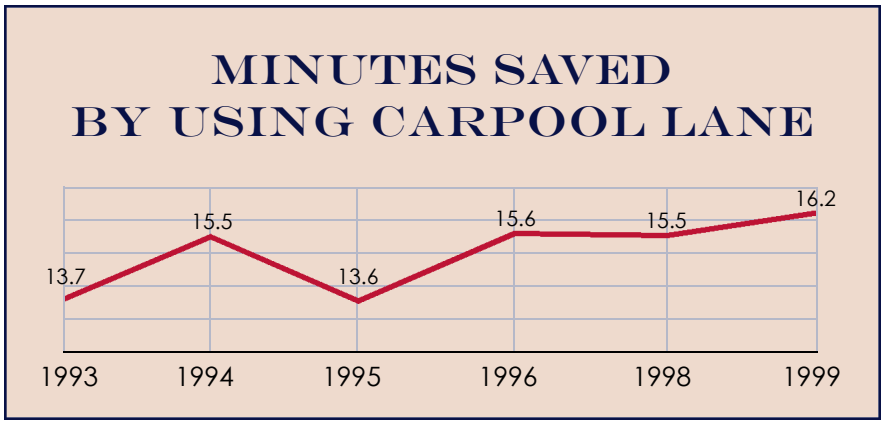
Of those who indicated there was a carpool lane along their route to work, 22.3% said they used the lane regularly.[6] Although this is down from last year, when 38% of respondents indicated that they used the lanes, it is more in line with previous years. In 1996, 26% said they used the carpool lane along their route and in 1994, 22% indicated they used it. It appears the 1998 number was an aberration.

Of those who currently use the lanes, 85.1% indicated they save time by doing so. This is up considerably from last year, when 73.6% said the carpool lane saves them time. The estimated time saved getting to work by carpool lane users is just over 16 minutes—this is also up a bit from previous years (Figure 9).

Two questions were added to the *Commute Profile* survey

[6] *This is approximately 9% of all respondents.*

Figure 9



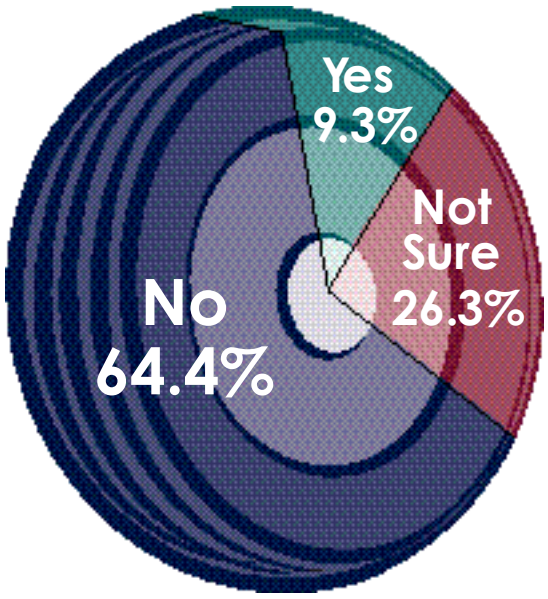
THE ESTIMATED TIME SAVED GETTING TO WORK BY CARPOOL LANE USERS IS JUST OVER 16 MINUTES.

this year to examine in more detail how carpool lanes influence mode choice. Respondents who were currently using an HOV mode, were asked if the carpool lane influenced their decision to carpool, vanpool, or use transit. Well over half (59.5%) indicated that it had indeed influenced their decision. Even more extreme was the response to the question: Would you continue to carpool, vanpool, or ride transit if the carpool lane did not exist? Less than 10% of respondents to this question said that they would

Figure 10

CONTINUED USE OF HOV MODE WITHOUT CARPOOL LANE

n=289



LESS THAN 10% OF RESPONDENTS... SAID THAT THEY WOULD CONTINUE TO USE AN HOV MODE IF THE CARPOOL LANE DID NOT EXIST! CARPOOL LANES CLEARLY PLAY AN IMPORTANT ROLE IN MOTIVATING COMMUTERS TO USE HOV MODES.

continue to use an HOV mode if the carpool lane did not exist (Figure 10)! Carpool lanes clearly play an important role in motivating commuters to use HOV modes.

Respondents were also asked if they had heard or seen any advertisements for carpool lanes. A remarkably high percentage (64.2%) indicated they had. This question was included mainly to help measure the impact of a carpool lane promotion in Santa Clara County. There was little difference between respondents from Santa Clara and other counties. Those who responded in the affirmative were asked where they had seen or heard advertisements. An overwhelming majority (70%) said they had seen advertisements on freeway signs. The freeway signs, which designate diamond lane location and operating rules, were not what we considered advertisements when the questions were drafted.

TELECOMMUTING

Most respondents (79.2%) indicated they do not have the option to work at home instead of going to their regular place of work. Only 20.7% of respondents indicated their employer provides them the opportunity to telecommute. This is up a bit from previous years when closer to 16% of respondents indicated that telecommuting was an option available to them. The increase is consistent with the number of respondents who indicated that telecommuting was their primary commute mode.

Table 9

TRIPS MADE ON TELECOMMUTING DAYS

	1998	1999
Fewer	60.4%	66.9%
Same	34.6%	24.0%
More	5.0%	9.1%
	n=159	*n=674*

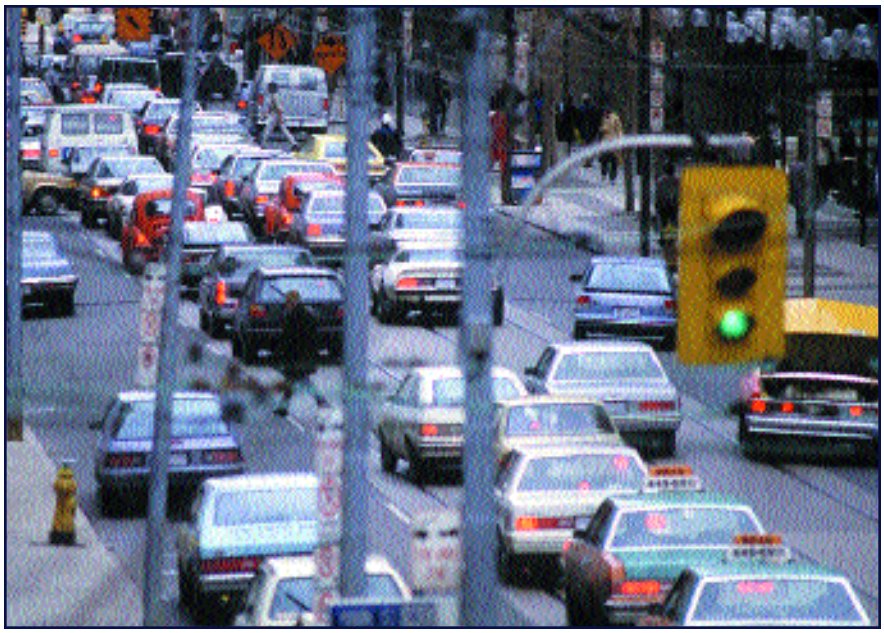
Approximately 84% of respondents who have the option to telecommute take advantage of it. Of those who do telecommute:

- 19.3% do so one day per month,
- 41.4% do so two to four days per month,
- 39.4% do so five or more days per month.

The average is 6.6 days per month. This is up a bit from the 1998 survey, in which the average was 5.9 days per month and up even more from the 1996 average of 4.6 days per month.

Since one goal of telecommuting is to reduce vehicle trips, respondents were asked if they made more, the same or fewer trips on days when they telecommute compared with days when they commuted to work. Although 11.0% of respondents indicated that they did not know if they made more or fewer trips, Table 9 shows that of those who were aware of their travel behavior, the majority (66.9%) of telecommuters make fewer trips. The data show some variation from 1998, but the proportions are similar (i.e., most telecommuters still make fewer trips). ✦

DETERMINANTS OF MODE CHOICE



This section looks at why commuters choose specific modes, changing commute conditions, parking and employer incentives and changes in home and work location.

WHY COMMUTERS CHOOSE SPECIFIC MODES

Commute Profile respondents were asked why they use their current commute mode. Table 10 shows the reasons for all respondents and reasons for subgroups based on current mode. Convenience and flexibility was the most commonly cited reason. Because of the generic nature of this response, respondents were asked to explain further what they meant by convenience and flexibility. Table 11 provides further detail on respondents' meaning of convenience and flexibility.

In most cases, respondents using different modes cite similar reasons for choosing how they get to work. However, there were some notable variations. Transit and "other" mode users cited convenience and flexibility more frequently. Respondents with irregular work hours/schedules influencing their commute mode choice were more likely to drive alone. Commuters who were

RESPONDENTS WITH IRREGULAR WORK HOURS/ SCHEDULES...WERE MORE LIKELY TO DRIVE ALONE.

Table 10

MODE CHOICE FACTORS

Reason For Mode Choice	All Modes	Drive Alone	Carpool	Transit	Other
Convenience and flexibility	20.7%	19.7%	15.6%	29.0%	34.3%
Work hours/work schedule	20.4%	27.3%	12.4%	1.1%	2.9%
No other way to get to work	18.5%	19.3%	12.4%	23.3%	10.5%
Commuting costs	7.9%	2.3%	18.4%	18.1%	13.4%
Travel time to work	7.6%	6.9%	8.9%	9.2%	7.0%
Need vehicle during work	4.1%	5.9%	2.1%	0.0%	0.0%
Not being dependent on others	2.6%	3.1%	1.1%	0.6%	4.7%
Comfort/relaxation	3.8%	2.1%	3.0%	9.9%	12.2%
Need vehicle to transport kids	2.4%	1.3%	12.1%	0.0%	0.0%
Need vehicle before/after work	2.2%	3.5%	1.8%	0.0%	0.0%
Come and go as I please	2.2%	2.7%	2.5%	0.4%	0.6%
Privacy	1.6%	2.0%	0.2%	0.8%	0.0%
Stress	0.9%	0.3%	0.9%	1.9%	2.9%
Environmental concerns	0.7%	0.1%	1.6%	2.1%	3.5%
To use HOV lanes	0.7%	0.1%	3.4%	0.6%	0.0%
No one to carpool with	0.6%	1.0%	0.0%	0.0%	0.0%
Live close to work	0.5%	0.5%	0.5%	0.0%	2.9%
Enjoy talking with someone	0.4%	0.0%	1.8%	0.6%	1.2%
Safety	0.5%	0.3%	0.5%	0.4%	0.0%
Ability to get home in emergency	0.3%	0.5%	0.0%	0.0%	0.0%
Employer/other incentives	0.3%	0.1%	0.2%	1.0%	0.0%
"Other"	1.2%	1.0%	1.1%	1.0%	4.1%
n=	*3,669*	*2,456*	*546*	*514*	*153*

conscious of costs were more likely to carpool or use transit. Carpoolers also needed their vehicle to transport kids. Transit and "other" mode users cited comfort and relaxation more frequently. Those commuters who were concerned about stress or the environment were more likely to choose transit or "other" modes. Commuters who wanted to use HOV lanes (the legal way) were more likely to carpool, and respondents who live close to work were more likely to use "other" modes, such as walking and biking.

Table 11

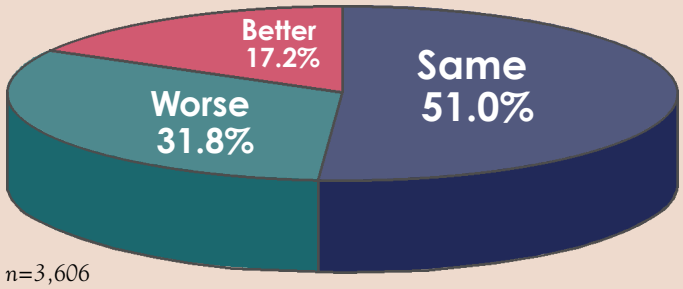
CONVENIENCE AND FLEXIBILITY

Explanation	All Modes	Drive Alone	Carpool	Transit
Travel time	12.2%	13.0%	14.0%	13.0%
Work hours/work schedule	11.5%	14.4%	9.0%	3.6%
Come and go as I please	9.2%	14.4%	2.0%	1.2%
Costs	8.5%	2.4%	17.0%	21.3%
Not depending on others	6.9%	9.8%	1.0%	2.4%
Only way to get to work	6.4%	5.9%	7.0%	5.3%
Comfort/relaxation	6.2%	2.0%	6.0%	18.3%
Have vehicle during work	5.8%	9.6%	2.0%	0.0%
Live close to work	5.6%	3.3%	4.0%	5.3%
No one to carpool with	3.9%	6.5%	2.0%	0.0%
Privacy	3.6%	3.9%	3.0%	1.8%
Vehicle to transport kids	2.6%	2.4%	10.0%	0.0%
No parking/parking expensive	1.9%	0.2%	0.0%	5.3%
Have vehicle before/after work	1.9%	3.0%	2.0%	0.0%
Stress	1.9%	1.2%	5.0%	2.4%
Enjoy company	1.4%	0.8%	3.0%	0.0%
Safety	1.3%	0.4%	0.0%	1.8%
Environment	1.2%	0.0%	5.0%	2.4%
No public transit near me	1.1%	2.0%	2.0%	0.0%
Get home in emergency	0.7%	1.2%	0.0%	0.0%
Employer/agency incentives	0.2%	0.0%	0.0%	1.8%
"Other"	6.0%	3.4%	6.0%	14.2%
n=	*780*	*460*	*93*	*170*

Convenience and flexibility translated for most respondents into travel time and the ability to work around an irregular schedule (Table 11). In addition, for commuters who were driving alone, the ability to come and go as they pleased was a big part of what they earlier described as convenience and flexibility. For a large percentage of carpoolers and transit riders, convenience really meant costs and, for carpoolers, the ability to transport kids.

Figure 11

COMMUTE CONDITIONS



n=3,606

HOW COMMUTE HAS GOTTEN BETTER OR WORSE

Better		Worse	
Moved home/ job location	39.2%	Traffic heavier	70.2%
Traffic lighter	23.7%	Transit slower/ more crowded	8.2%
Changed route	10.9%	Moved home/ job location	6.9%
Roadway improvements	10.4%	Construction delays	3.9%
Changed mode	8.4%	Changed mode	1.4%
Better transit service	5.8%	Travel at different time	1.9%
Travel at different time	3.4%	Poor drivers	1.2%
Less road work	1.1%	Road work	1.3%
Weather improved	0.5%	Lack of roadway improvements	1.1%
Other	6.6%	Traffic lights	0.7%
		Weather worse	0.4%
		Other	2.0%

Better n=618
Worse n=1,144

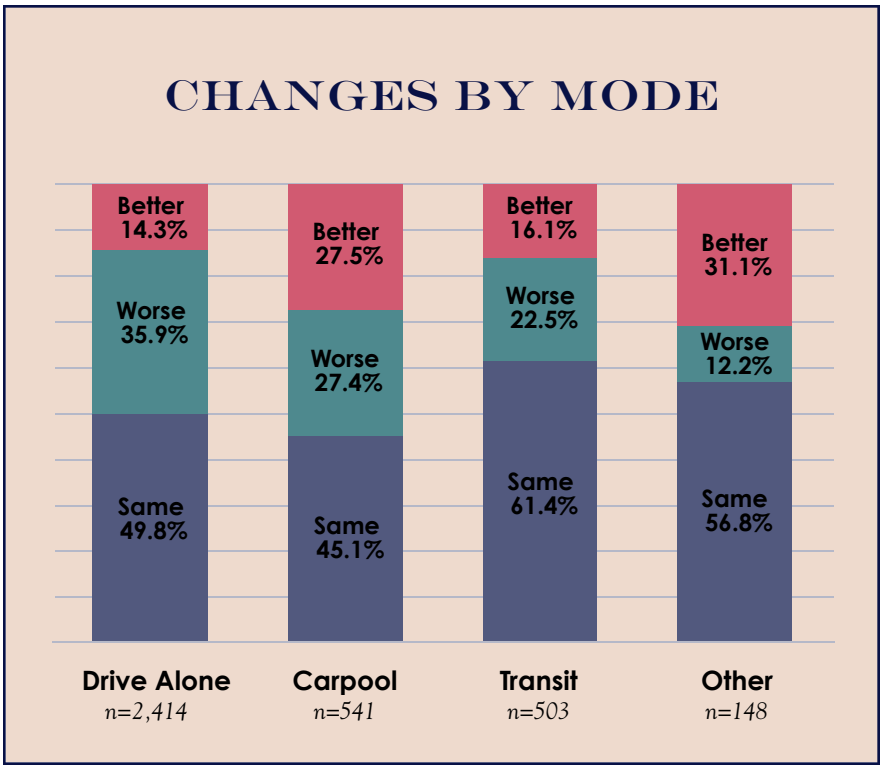
CHANGING COMMUTE CONDITIONS

Respondents were asked if their current commute is better, about the same, or worse than a year ago. Most respondents indicated their commute conditions were about the same as they were a year ago (Figure 11). Just under a third of commuters felt their commute had gotten worse; those who indicated their commute had gotten better were in the minority.

For those whose commute had improved, two reasons dominated: a change in home or job location and lighter traffic (Figure 11). For those whose commute has gotten

MOST RESPONDENTS INDICATED...COMMUTE CONDITIONS WERE ABOUT THE SAME AS...A YEAR AGO...A THIRD... FELT THEIR COMMUTE HAD GOTTEN WORSE; THOSE WHO INDICATED COMMUTE HAD GOTTEN BETTER WERE IN THE MINORITY.

Figure 12



worse, heavier traffic was the clear consensus. Last year fewer respondents cited heavier traffic (58.2%) but more respondents had cited construction delays (10.7%). The category of "transit slower/ more crowded" is new this year to the list of reasons for conditions getting worse. It is a distant second most common reason for worsening conditions.

It is also interesting to look at changing perceptions by mode of travel. "Other" mode users and carpoolers were more likely to say their commutes were getting better and drive-alone commuters were more likely to say their commutes were getting worse (Figure 12). The more positive outlook from carpoolers and "other" mode users may be a result of them switching from driving alone to another mode or from improvements in HOV facilities.

"OTHER" MODE USERS AND CARPOOLERS WERE MORE LIKELY TO SAY THEIR COMMUTES WERE GETTING BETTER AND DRIVE-ALONE COMMUTERS WERE MORE LIKELY TO SAY THEIR COMMUTES WERE GETTING WORSE.

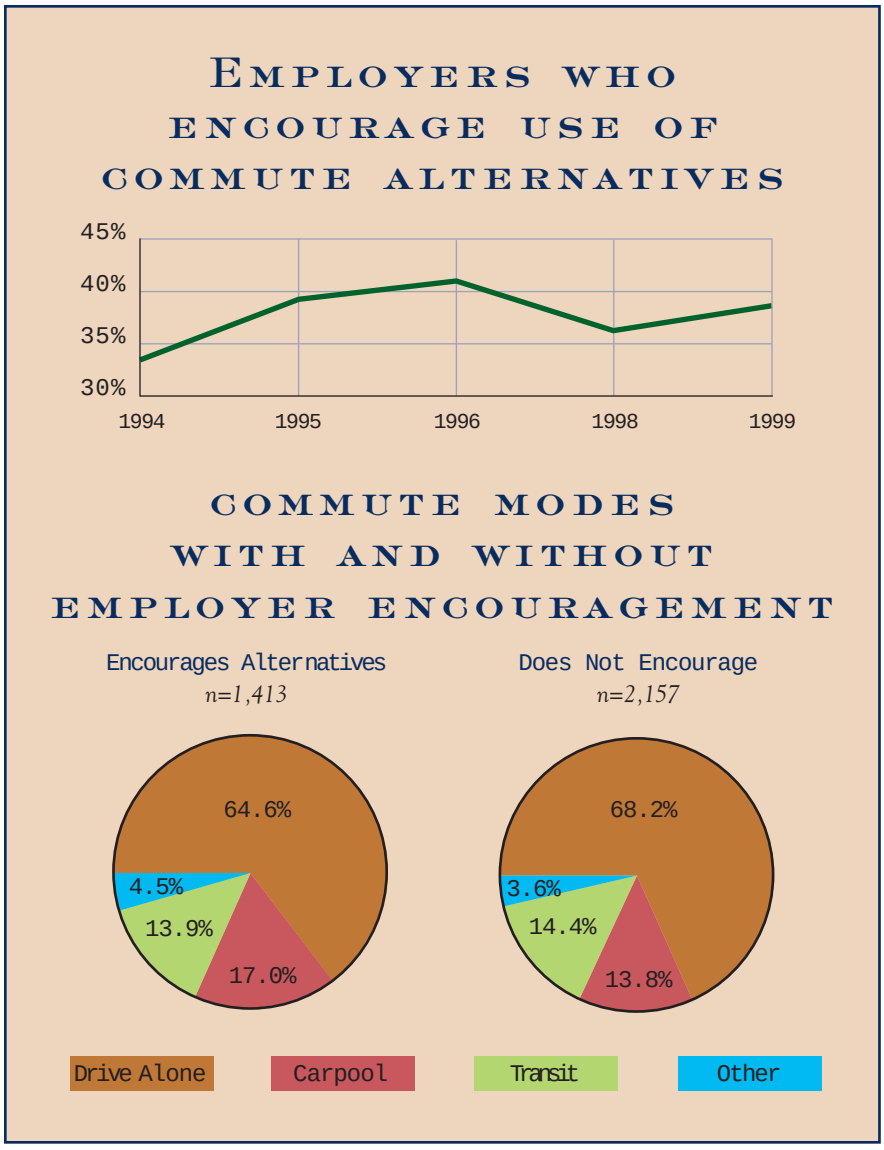
County Comparisons

In most cases, respondents from individual counties did not indicate much difference from the region as a whole. However, there were some exceptions. Conditions in Sonoma appear to be worsening at a faster rate than other counties (better = 11.0%, worse = 44.6%); San Mateo also showed a slight indication of worsening faster than the average (better = 13.5%, worse 35.2%). Commuters from Solano County have a more positive perspective than commuters from other counties do (better = 24.9, worse = 27.0). Since many Solano County commuters use the I-80 corridor, this is most likely due to capacity improvements on that corridor.

PARKING AND EMPLOYER INCENTIVES

Almost eight out of ten respondents have free all-day parking available at or near their worksite. The influence on mode choice of destinations with and without free parking is significant. Although parking is the variable identified here, other characteristics associated

Figure 13



with the parking conditions most likely influence mode choice. For example, in areas such as downtown San Francisco where free parking is scarce, there is also more transit service, more amenities within walking distance of offices and more traffic congestion.

Locations with free parking have a drive-alone rate of 78.5%, while those without free parking have a drive-alone rate of 36.7%. Results from past years show similarly large differences between respondents who commute to areas with free parking versus those who commute to areas where one must pay to park. Transit use is even more dramatic. For those with free parking, the transit use rate is 5.7%; for those without, it jumps to 43.9%. Carpooling rates were actually a little higher in areas with free parking 15.5% versus 12.9% for those without free all-day parking. The lesson to be gleaned from these impressive numbers is that it is possible to have very high usage of commute alternatives given the right combination of factors (i.e., infrastructure can influence mode choice).

Respondents were also asked if their employer encourages employees to use transit, carpool, bicycle, or walk to work. Over a third of respondents, (38.5%) indicated that their employer did. This is up slightly from the previous year (Figure 13). The high point in 1996 was probably a carryover from the Bay Area Air Quality Management District's mandated trip-reduction regulation, which was legislated out of existence in late 1995, and the more recent decline is likely related to the absence of that regulation.

Last year there was a difference of 2.7 percentage points between the drive-alone rate of commuters at companies with and without employer encouragement; this year is similar at a difference of 3.6 percentage points (Figure 13). In 1996, the difference in the drive-alone rate was greater

almost 7 percentage points. The 1996 survey was done when the Air District's trip-reduction regulation was still influencing employer programs (i.e., encouraging more active programs).

INTERNET ACCESS

Because the Internet is playing a bigger role for more people in the information gathering and decision-making process, the *Commute Profile* questionnaire included a series of questions designed to determine its role in commute decisions. The majority of respondents (71.1%) have regular access to the Internet (Table 12). Awareness of transit, carpool, and traffic information on the Internet is fairly high (25%). However, only 3.4% of respondents use the Internet more than once a week for travel information.

Table 12

USE OF INTERNET FOR TRAVEL DECISIONS

Have Internet access *n=2,610*	71.1%
Aware of transit, carpool, and traffic information on the Internet *n=914*	24.9%
Use for transit/ traffic information infrequently (less than once a week) *n=234*	6.4%
Use for transit/ traffic information once or more a week *n=127*	3.4%

CHANGES IN HOME AND WORK LOCATION

When commuters change their home or work location, an excellent opportunity exists to introduce them to commute alternatives. This is the second year Commute Profile has tracked the length of time since individuals last changed their home or work locations. The data for both years are similar. As might be expected, work locations change more frequently than residential locations. Respondents had been at their current work location for 5.9 years and at their current home location for an average of 7.7 years. Table 13 shows that for both residence and work location the most common category is 1-3 years.

Last year's report noted that the transit use rate is higher for people who change their home and work location more frequently. This year's results differed. Transit use was relatively even across all categories. However, there appears to be a spike in the drive-alone rate for commuters who have been at their home and work locations for more than 15 years (75% drive alone for those over 15 years versus 65% drive alone for those under 15 years). This could be related to age; older commuters are more likely to drive alone than are younger commuters. ♦

Table 13

LAST CHANGED HOME OR WORK LOCATION

	Residence	Work Location
Less than 1 Year	10.7%	15.2%
1-3 Years	32.1%	38.2%
4-6 Years	19.1%	16.3%
7-9 Years	7.6%	7.5%
10-15 Years	15.4%	12.9%
More than 15 Years	15.2%	9.8%
	n=3,642	*n=3,599*

ASSESSING MARKET DEMAND

This section discusses past use of commute alternatives and likelihood of future commute alternative use.

PAST USE OF COMMUTE ALTERNATIVES

Drive-alone commuters tend to be the most loyal to their mode of transport; the typical drive-alone commuter has been using that mode for just under 11 years. Transit users and carpoolers do not stick with their travel modes nearly as long; transit users average 6.4 years and carpoolers only 3.8 years. This is the second year that these data were tracked, and although their relative positions are the same (i.e., drive alone longest, transit second, and carpooling the shortest) the difference between them is less this year. Last year drive-

...THE TYPICAL DRIVE-ALONE COMMUTER HAS BEEN USING THAT MODE FOR JUST UNDER 11 YEARS... TRANSIT USERS AVERAGE 6.4 YEARS AND CARPOOLERS ONLY 3.8 YEARS.

Table 14

REASONS FOR NOT CARPOOLING OR RIDING TRANSIT

Reasons For Not Carpooling		Reasons For Not Riding Transit	
Can't find partners	29.5%	Takes too much time	23.2%
Irregular work hours	29.0%	Transit unreliable	14.3%
Prefer to drive alone	9.0%	No service available	13.7%
Need car during work	8.3%	Irregular work hours	13.4%
Takes too much time	7.4%	Need car during work	8.2%
Need car before/ after work	3.5%	Prefer to drive alone	7.9%
Transport children	3.0%	Need car before/ after work	4.2%
Work close to home	2.5%	Never considered it	3.6%
Desire privacy	2.5%	Transport children	2.9%
Never considered	2.5%	Too expensive	1.6%
Need car in an emergency	0.6%	Work close to home	1.1%
Safety	0.3%	Desire privacy	1.1%
Other	2.0%	Safety	1.0%
Not Carpooling n=2,669		Need car in an emergency	0.7%
Not Riding Transit n=2,663		Other	2.9%

alone commuters had been using their mode for over 13 years and carpoolers for only 2.5 years.

To find out more about why alternative mode users switch modes, respondents who normally drive alone to work were asked if they had ever carpooled or rode transit to get to their current job (Table 14). A surprisingly high percentage (33.9%) indicated that they had carpooled or used transit in the past. Those who had carpooled or used transit were asked why they no longer did so regularly.

Difficulty finding partners and irregular hours topped the list of reasons why respondents no longer carpooled. About 35% of respondents who could not find partners were unaware of the regional ride-matching service. One factor stood out at the top of the transit list—it takes too much time. Reliability, lack of service, and irregular work hours were other common reasons cited by former transit riders.

LIKELIHOOD OF FUTURE COMMUTE ALTERNATIVE USE

Respondents who were currently driving alone were asked how possible it would be to carpool, ride transit, or bicycle to work at least one or two days a week (Figure 14). Each column is dominated by the "not at all possible" response. Carpooling is the alternative that appeals to the greatest number of people with 18.9% indicating it is somewhat to very possible. With more than 2 million commuters driving alone throughout the Bay Area, 18.9% represents approximately 400,000 commuters who feel carpooling is an option for them.

Both the percentages of respondents indicating it is "very" to "somewhat" possible to use transit and bicycle dipped from last year. The bicycle numbers change considerably if only the commuters

Figure 14

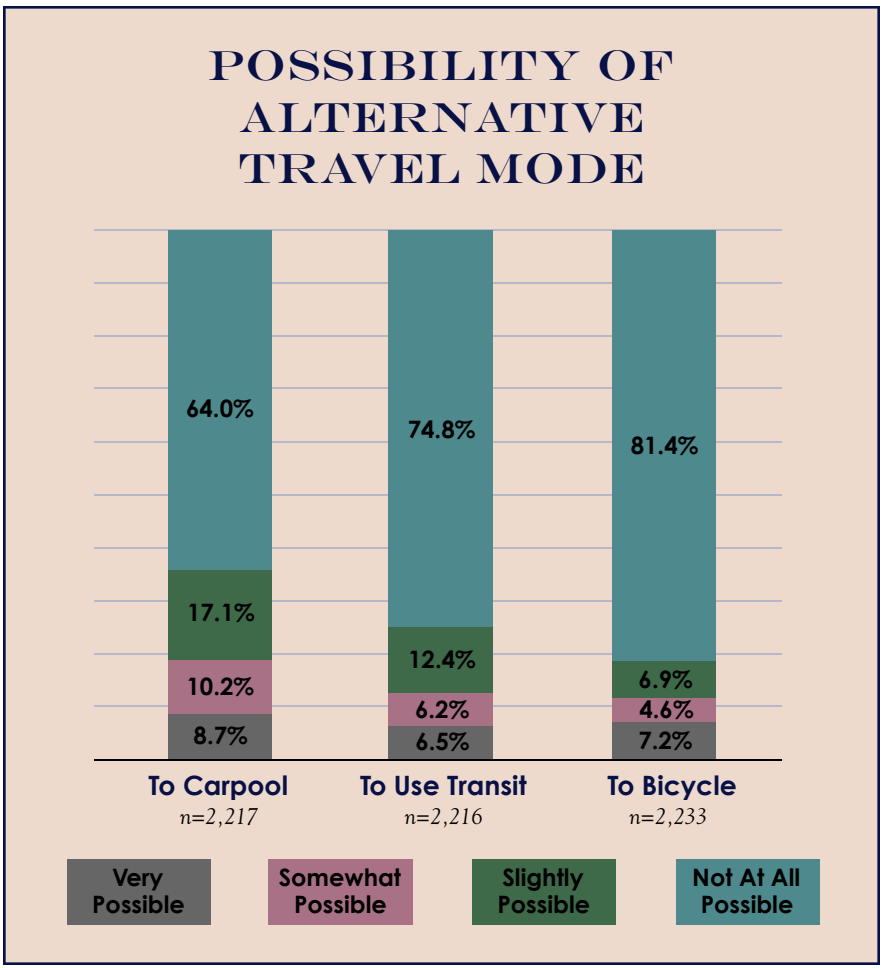
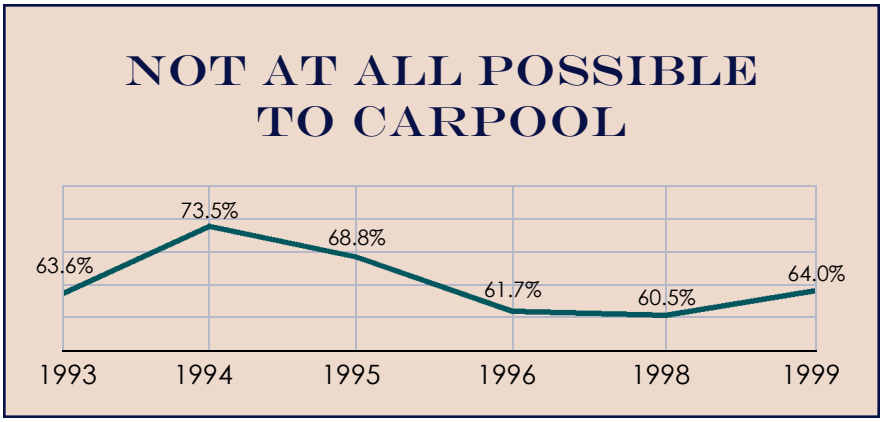


Figure 15



who travel 10 miles or less are selected. The potential bicyclists group (i.e., "very" to "somewhat" possible) goes up to 21.5%. Over 47% of Bay Area commuters travel 10 miles or less to work, so this is a substantial number of commuters (over 300,000) who feel bicycling is a realistic alternative.

Compared with earlier years' responses to the question about the likelihood of future carpool use, this year's results are disappointing. Earlier years noted a trend of declining numbers of commuters indicating that it would not be possible to carpool. That downward trend has reversed itself in 1999 (Figure 15).

On a more positive note, when asked if they would be willing to take a carpool passenger if it changed their trip by less than five minutes, almost half (46.5%) of respondents who currently drive alone indicated they would be willing to do so. Results from this question in previous surveys were similar. ✦

AWARENESS OF COMMUTE SERVICES

This section gauges commuters' awareness of RIDES, its 800-755-POOL phone number, the TravInfo service and its 817-1717 phone number.

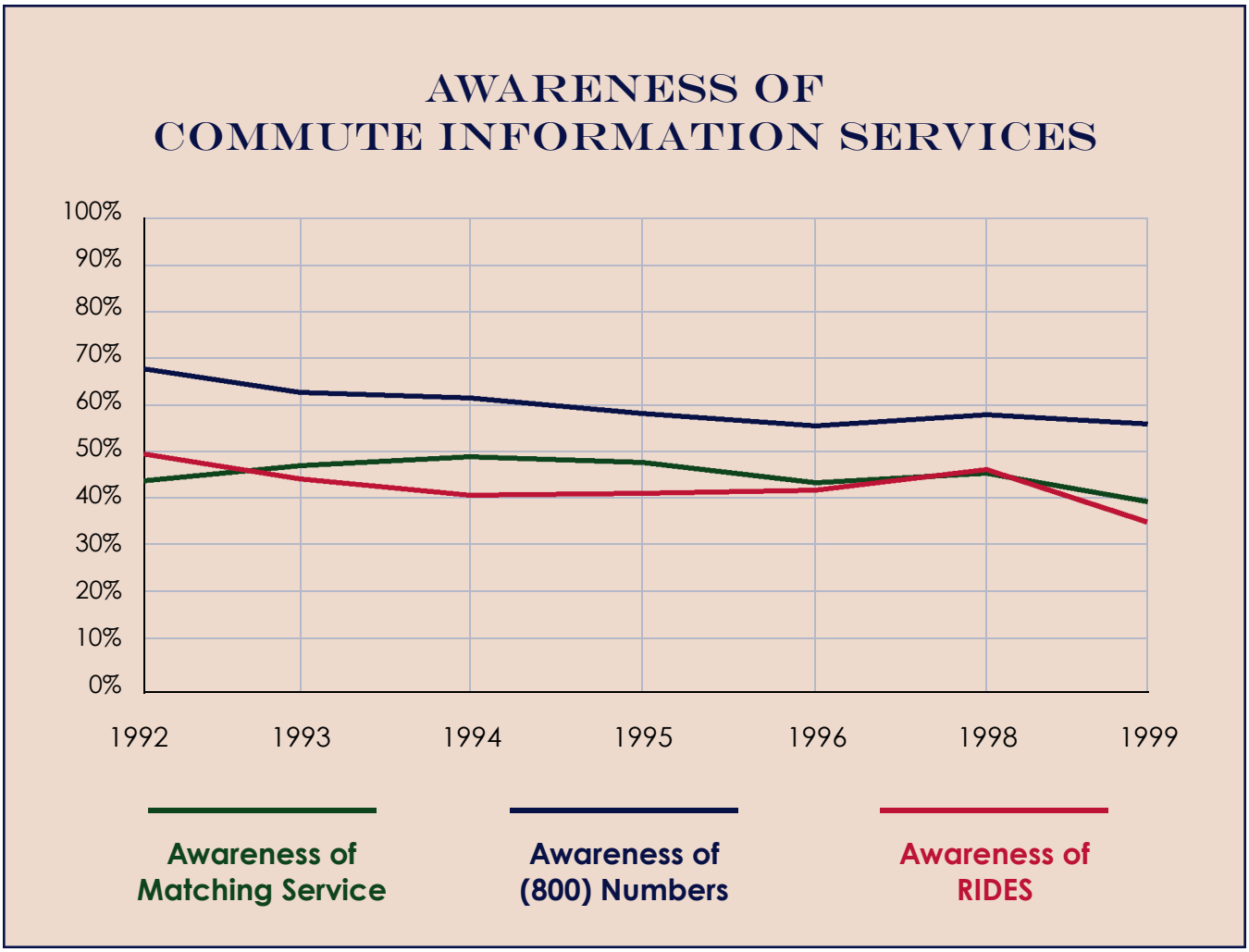
Respondents were asked if they were aware of a free service that would provide them with a list of potential carpool partners. Awareness of the Matchlist service appears to have peaked in 1994 when it was at 48.3% and dropped substantially in 1999 (Figure 16).

Questions on awareness of carpool information numbers (800-755-POOL for RIDES and 800-53-KMUTE for Solano Commuter Information) were also included in the survey. The highest level of awareness recorded was in 1992 (Figure 16). The level of awareness of

OF THOSE WHO WERE AWARE OF THE 800 NUMBERS, 11.6% HAD CONTACTED THEM...200,000 COMMUTERS HAVE CONTACTED THE 800 NUMBERS.

MOST WHO KNEW OF RIDES HAD HEARD ABOUT IT THROUGH THE MEDIA.

Figure 16



the phone numbers has not changed significantly since 1995. Of those who were aware of the 800 numbers, 11.6% had contacted them. This is up from last year when only 6.6% had contacted the 800 numbers. Based on these estimates, approximately 200,000 commuters have contacted the 800 numbers.

The survey included questions to see if respondents were familiar with the region's transit and traffic phone number 817-1717. The percentage of respondents familiar with the 817-1717 number (10.8%) was significantly lower than those familiar with the 800-755-POOL number. This is not surprising given that the 817-1717 service is relatively new in the Bay Area. Awareness is also down a bit from last year when 12.8% of respondents indicated they were familiar with the transit and traffic number. Of those who had heard of 817-1717, 31.6% had contacted it. Based on these estimates, approximately 100,000 commuters have contacted the 817-1717 number.

Respondents were asked if they had heard of an organization called RIDES for Bay Area Commuters (Figure 16).

Awareness dropped significantly from last year. The 1998 number was inflated by the BART strike, which happened about five months before that survey and provided a great deal of media exposure for RIDES. However, the 35.3% level of awareness recorded in 1999 is still the lowest to date. In 1992, the RIDES program budget and staff was almost double what it is today; those dollars appear to have been able to buy awareness.

Most who knew of RIDES had heard about it through the media (Table 15). Publicity at work, freeway signs, and friends or co-workers were other significant sources among those who could remember where they learned of the Bay Area's regional ridesharing program.

County Comparisons

Awareness of RIDES and Solano Commuter Information varies considerably from county-to-county (Table 16). Alameda County has the highest level of awareness (40.2%); the lowest level of awareness was recorded in Napa County (7.8%). Awareness of the 817-1717 number also varied from county-to-county. Alameda again showed the highest level of awareness and Napa the lowest. Awareness of the POOL numbers, however, did not vary much from county-to-county. ✦

[7]SCI=Solano Commuter Information

Table 15

HOW COMMUTERS HEARD OF RIDES

Media	35.1%
At work	16.6%
Freeway sign	15.1%
Friend or co-worker	14.2%
Direct mail	4.0%
Saw vanpool	3.8%
Transit agency	3.1%
Community event	1.9%
Local agency/city	1.8%
Internet	0.9%
School	0.8%
"Other"	2.5%

n=1,144

Table 16

AWARENESS OF TRANSPORTATION SERVICES

County	RIDES/SCI[7]	POOL Numbers	817-1717
Alameda	40.2%	56.5%	14.9%
Contra Costa	38.7%	56.9%	8.1%
Marin	36.5%	53.3%	8.0%
Napa	7.8%	46.9%	7.3%
San Francisco	35.5%	49.3%	11.0%
San Mateo	35.8%	58.2%	10.2%
Santa Clara	33.3%	56.3%	11.2%
Solano	19.0%	54.5%	9.8%
Sonoma	32.1%	56.0%	7.7%

CONCLUSIONS

This section summarizes some of the more interesting findings from the survey.

This is the seventh edition in the *Commute Profile* series. The objective of the series is to track and analyze commuting behavior and trends of Bay Area residents.

This year's survey found a drop of almost 5% in the drive-alone rate from last year. Last year's drive-alone rate was up about 5% from the previous year—so we're back to approximately where we were in 1996. Transit use increased the most from 1998 to 1999—over 3%. Smaller increases in carpooling and "other" mode use were recorded. Within the "other" mode category telecommuting increased substantially, and biking and walking rebounded somewhat from the bad weather-induced low of 1998. These yearly fluctuations are difficult to explain with certainty—especially given that there is some normal error associated with sample-based data. Future editions of *Commute Profile* will determine if the decrease in driving alone seen in 1999 is the beginning of a trend.

Although commute distance dropped slightly from last year, it still exhibits an upward trend over the years. Distance also seems to influence mode choice. Longer distance commuters are more likely to carpool than commuters who are traveling shorter distances, and commuters traveling shorter distances are more likely to

ride transit or use "other" modes than are longer distance commuters. Travel speed has changed little since last year.

Just over half of the respondents to the survey indicated that their commute conditions had not changed over the last year. Although commuters who felt their conditions had improved were in the minority, carpoolers and "other" mode users were more likely to feel this way. Drive-alone commuters were more likely to say their commutes were getting worse. The more positive outlook from carpoolers and "other" mode users may be a result of them switching from driving alone to another mode or from their use of new HOV facilities.

Travel time and reliability are the main reasons commuters shy away from transit. Difficulty finding partners and irregular work hours are the main reasons commuters shy away from carpools. Although 64% of respondents indicated it would not be possible for them to carpool, when the question was worded differently the response was more positive. Almost half of respondents were agreeable to adding a passenger to their car. For the past couple of years, the response to the question which asks commuters if they would be willing to add a passenger to their car if it changed their trip by five minutes or less has been very positive. Since survey respondents respond so positively to this proposition, perhaps it could be rolled into a marketing theme and generate some equally positive results.

Shifting commuters to modes other than driving alone is challenging. Driving alone is, for most people, the option that is the easiest, the fastest and the most reliable. For planners and practitioners trying to change this behavior, the data collected here that shows a dramatic decline in driving alone for commuters who work in areas where free parking is not available provides some insight. Free parking, as mentioned earlier, is simply the variable this study uses to identify areas with limited parking, good transit service, numerous amenities within walking distance of jobs, and relatively heavy congestion. What we know is that this combination encourages the use of commute alternatives. The challenge is to recreate this in more places. Doing so on a scale similar to the San Francisco Financial District may not be possible, but on a smaller scale "transit-oriented" development, "smart growth" initiatives and "Transportation for Livable Communities" projects may be headed in the right direction. Modifying the region's infrastructure to discourage driving alone is a difficult and long-term challenge. Evidence from *Commute Profile* points toward HOV facilities as a potential shorter-term "solution."

SHIFTING COMMUTERS TO MODES OTHER THAN DRIVING ALONE IS CHALLENGING...AREAS WITH LIMITED PARKING, GOOD TRANSIT SERVICE, NUMEROUS AMENITIES WITHIN WALKING DISTANCE OF JOBS, AND RELATIVELY HEAVY CONGESTION... THIS COMBINATION ENCOURAGES USE OF COMMUTE ALTERNATIVES.

Carpool lanes continue to save their users time. According to the results of this survey, more commuters are using HOV lanes, and they are saving more time. The percentage of users who report that the carpool lanes are saving them

time and the amount of time saved increased substantially. Travel time and reliability are important factors in mode choice—factors that can be influenced by HOV facilities.

Because of considerable recent discussion on the effectiveness of carpool lanes, two questions were added to *Commute Profile 1999*. The responses to both indicate that carpool lanes are an effective tool for increasing the attractiveness of HOV modes. Almost 60% of respondents who were not driving alone indicated that the carpool lane had influenced their decision to use an HOV mode. And, of those respondents who were currently using the carpool lane, over 90% indicated that they would likely switch from an HOV mode without the carpool lane. These responses argue strongly in support of the role of carpool lanes in motivating commuters to use HOV modes.

Awareness of a matching service, awareness of RIDES, and awareness of the 800-755-POOL phone number are all declining. They peaked several years ago when RIDES had a significantly larger budget and the Air District's trip-reduction ordinance was in effect. Larger budgets and region-wide mandated trip-reduction programs are difficult to replicate. Without those resources available, a new strategy is needed to reverse the trend of decreasing awareness.

CARPOOL LANES CONTINUE TO SAVE THEIR USERS TIME. ACCORDING TO...THIS SURVEY, MORE COMMUTERS ARE USING HOV LANES, AND THEY ARE SAVING MORE TIME...TRAVEL TIME AND RELIABILITY ARE IMPORTANT FACTORS IN MODE CHOICE—FACTORS THAT CAN BE INFLUENCED BY HOV FACILITIES.

This year's sample, as discussed in the methodology, was designed to provide useful data at the county level. Some interesting differences exist between the counties. Commuters who live in San Francisco are least likely to drive alone to work; Santa Clara commuters are the most likely to drive alone. Solano County residents have the highest incidence of carpool use while San Francisco commuters have the lowest carpool use and the highest transit use. Napa and Sonoma counties have the least number of residents using transit. Residents of Solano, on average, travel more than twice the distance to work as San Francisco residents and almost twice the distance of Santa Clara commuters. Only San Mateo residents have been able to decrease their average commute distance over the past couple of years. Commute conditions appear to be getting worse at a faster rate in Sonoma, as well as San Mateo, but to a lesser degree. Commuters in Solano are more positive about commute conditions than are commuters in other counties—likely the result of the new I-80 HOV facility.

Starting with the 1998 version of *Commute Profile*, home and work zip code data were collected. The long-term plan is to combine several years' results, creating a larger data set. This larger data set can be divided at finer geographic levels based on aggregations of zip codes. The data could then be used to study specific issues at the local or corridor level, as well as providing the opportunity for more detailed editions of *Commute Profile* in the future. ♦

Section 2

COUNTY PROFILES

COUNTY PROFILES

COUNTY PROFILE: ALAMEDA

The most common commute modes for Alameda County residents are driving alone (62%), carpooling (15%), and riding BART (10%). Slightly lower than the region's rate, Alameda County's drive-alone rate has declined a bit over the last five years (Table 17). Conversely, Alameda residents' rates of carpooling and riding BART have increased, and BART ridership is quite a bit higher than the region as a whole.

THE MOST COMMON COMMUTE MODES FOR ALAMEDA COUNTY...ARE DRIVING ALONE (62%), CARPOOLING (15%), AND RIDING BART (10%)...BART RIDERSHIP IS QUITE A BIT HIGHER THAN THE REGION AS A WHOLE.

Figure 17 provides an opportunity to compare the clustered mode split of Alameda County residents over time. The drive-alone rate of 1999 is similar to 1993. However, transit

Table 17

ALAMEDA PRIMARY COMMUTE MODE

	1993	1994	1996	1999
Drive alone	61.8%	65.0%	64.0%	62.3%
Carpool	13.0%	14.0%	11.0%	15.4%
BART	9.0%	6.5%	9.5%	10.2%
Bus	7.0%	5.5%	3.8%	6.7%
Walk	3.5%	3.0%	3.8%	1.7%
Telecommute	0.5%	0.8%	0.8%	1.0%
Bicycle	2.5%	1.8%	2.0%	1.0%
Ferry	0.3%	0.3%	0.0%	0.7%
Vanpool	0.3%	0.3%	0.5%	0.2%
Caltrain	0.3%	0.3%	0.0%	0.0%
Light rail	0.0%	0.0%	0.0%	0.0%
Other	0.8%	0.0%	0.3%	0.0%
Casual carpool	0.8%	2.0%	3.8%	0.0%
Motorcycle	0.3%	0.8%	0.8%	0.0%
n=403				

Figure 17

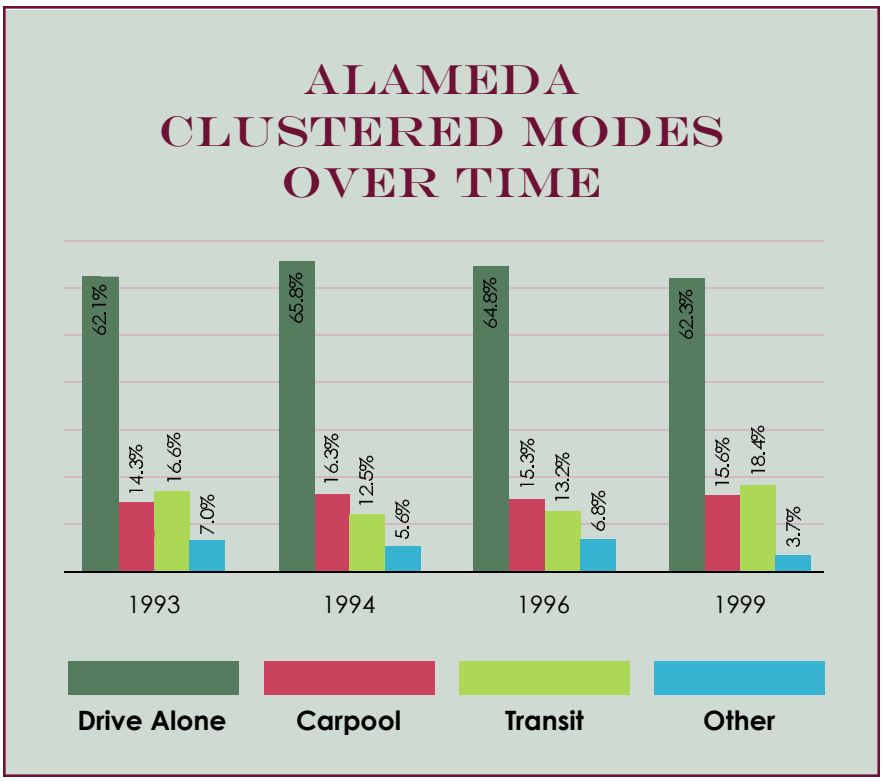
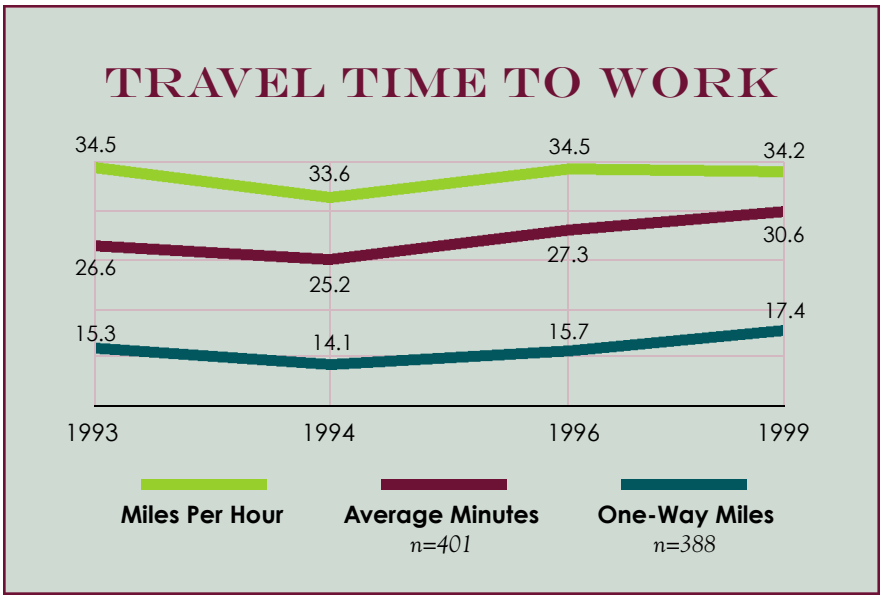


Figure 18



ridership has increased and the use of "other" modes is half that of past years.

COMMUTE DISTANCE AND TIME

Alameda County residents commute an average of 17 miles in 31 minutes, for an average speed of 34 miles per hour (Figure 18). Distance and time have increased over the last few years and are similar to the region as a whole. However, Alameda County residents have a slightly slower commute speed than the rest of the region. Their commute speed has stayed relatively constant over the years.

CARPOOL LANES

Figure 19 shows the results of various HOV lane-related survey questions. Not surprisingly,

ALAMEDA COUNTY RESIDENTS COMMUTE AN AVERAGE OF 17 MILES IN 31 MINUTES, FOR AN AVERAGE SPEED OF 34 MILES PER HOUR...SLIGHTLY SLOWER...THAN THE REST OF THE REGION.

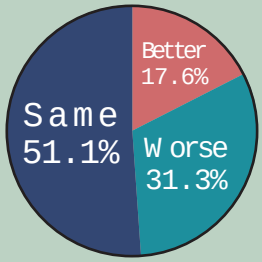
more Alameda County residents reported having a carpool lane on their route to work (48%) compared to the region as a whole. Likewise, more Alameda residents use the carpool lane (27%) and report that it saves them time (91%). However, they reported saving about the same amount of time (16 minutes) as the region. When asked if the carpool lane influenced their decision to use an HOV mode, Alameda County respondents were likely to say that it did. On the other hand, a higher percentage (15%) reported that they would still carpool even if the carpool lane on their route did not exist.

COMPARED TO THE REGION AS A WHOLE…MORE ALAMEDA RESIDENTS USE THE CARPOOL LANE…AND REPORT THAT IT SAVES THEM TIME.

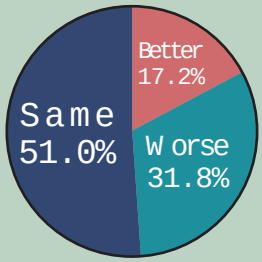
Figure 19

Figure 20

Alameda commute conditions



Alameda
n=403



Region
n=3,606

How commute has gotten better or worse

Better	Alameda	Region
Moved home/ job location	21.1%	39.2%
Traffic lighter	28.9%	23.7%
Changed route	13.2%	10.9%
Roadway improvements	7.9%	10.4%
Changed mode	3.9%	8.4%
Better transit service	6.6%	5.8%
Travel at different time	9.2%	3.4%
Less road work	0.0%	1.1%
Weather improved	0.0%	0.5%
Other	9.2%	6.6%

Better (Alameda) n=71; (region) n=618

Worse	Alameda	Region
Traffic heavier	67.4%	70.2%
Transit slower/ more crowded	7.6%	8.2%
Moved home/ job location	5.6%	6.9%
Construction delays	3.5%	3.9%
Changed mode	2.1%	1.4%
Travel at different time	1.4%	1.9%
Poor drivers	0.7%	1.2%
Road work	0.7%	1.3%
Lack of roadway improvements	2.1%	1.1%
Traffic lights	0.7%	0.7%
Weather worse	0.7%	0.4%
Other	3.5%	2.0%

Worse (Alameda) n=126; (region) n=1,144

Changing Commute Conditions

Changes in commute conditions over the last year in Alameda County did not differ greatly from changes the rest of the region experienced.

Figure 20 shows how people thought their commute had gotten better or worse. Like the region as a whole, the most common reasons for improved commute conditions were moving home or job location, lighter traffic, or changing routes. However, differences from the region s results included fewer reporting moving home or job location, roadway improvements, or changing mode, while more reported lighter traffic, changing routes, or traveling at a different time. Like the region s results, most Alameda County respondents reported worsening conditions because of heavier traffic. However, this rate was slightly lower than the region s. ✦

COUNTY PROFILE: CONTRA COSTA

Residents of Contra Costa County primarily get to work by driving alone (66%), riding BART (14%), or carpooling (13%). Similar to the region, Contra Costa County's drive-alone rate has declined slightly in recent years. However, unlike the region, BART is a more common commute mode than carpooling. In addition, telecommuting (2.7%) appears to have increased this year and riding the bus is much less common in the county than in the region as a whole. Table 18 shows the detailed mode split over time; Figure 21 shows the clustered mode split over time.

RESIDENTS OF CONTRA COSTA COUNTY PRIMARILY GET TO WORK BY DRIVING ALONE (66%), RIDING BART (14%), OR CARPOOLING (13%)...HOWEVER, UNLIKE THE REGION, BART IS A MORE COMMON COMMUTE MODE THAN CARPOOLING.

COMMUTE DISTANCE AND TIME

Figure 22 shows that the average Contra Costa residents' commute takes 32 minutes to go 21 miles, for a speed of 39 miles per hour. Commute distance and time are somewhat longer for Contra Costa residents than the region, but commute speeds are faster. All these measurements are higher

Table 18

CONTRA COSTA PRIMARY COMMUTE MODE

	1993	1994	1996	1999
Drive alone	63.5%	69.0%	66.8%	65.5%
BART	10.3%	9.8%	13.2%	13.8%
Carpool	20.0%	15.0%	13.5%	13.1%
Telecommute	0.0%	0.8%	0.2%	2.7%
Bus	1.8%	1.8%	1.7%	1.7%
Walk	1.5%	0.8%	0.5%	1.7%
Bicycle	0.8%	0.3%	1.0%	0.7%
Vanpool	0.3%	0.3%	0.2%	0.2%
Other	0.8%	0.0%	0.0%	0.0%
Casual carpool	1.3%	2.0%	2.7%	0.0%
Motorcycle	0.0%	0.5%	0.0%	0.0%
n=406				

Figure 21

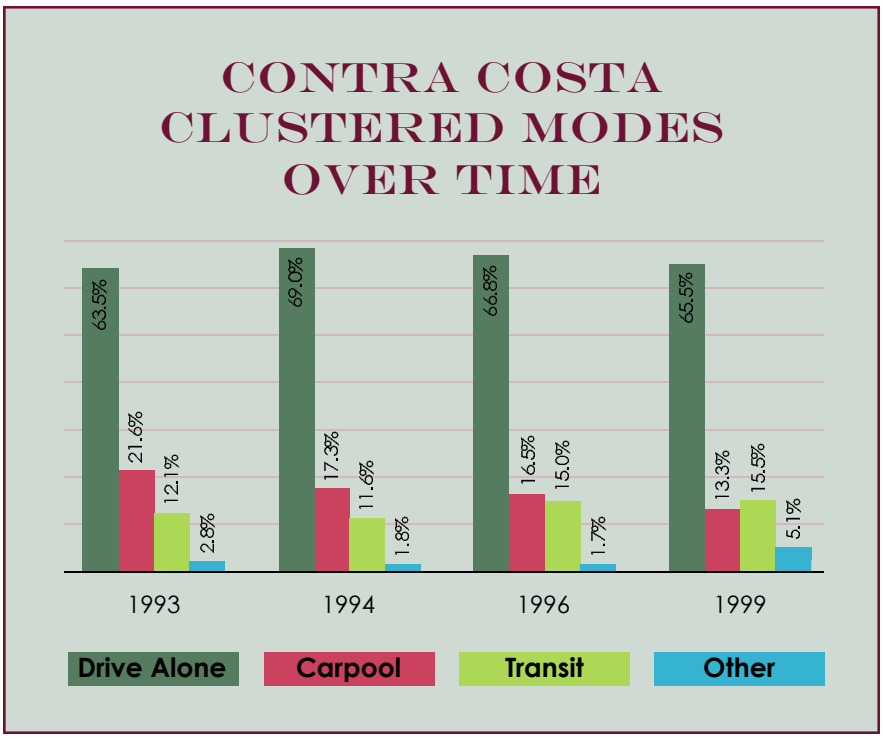
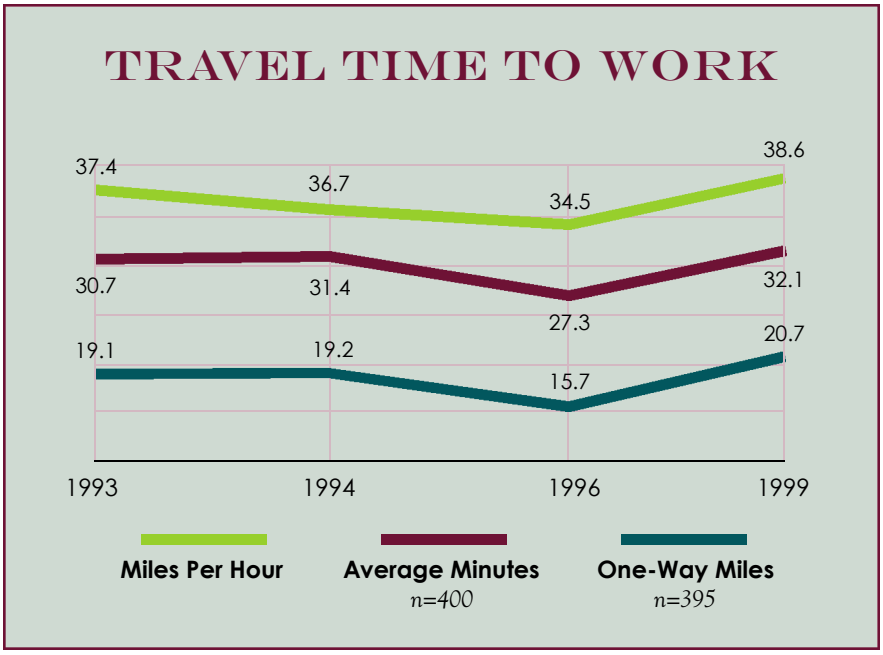


Figure 22



than the 1996 results but similar to results of prior years.

CARPOOL LANES

Figure 23 shows the results to questions of existence, use, and effectiveness of HOV lanes. These results are, in general, remarkably similar to the region's.

CHANGING COMMUTE CONDITIONS

Changing commute conditions, as reported by Contra Costa residents, were similar to those of the region as a whole with 20% reporting improved conditions, 34% reporting worsening conditions, and 47% reporting their commute conditions staying about the same.

...TELECOMMUTING (2.7%) APPEARS TO HAVE INCREASED THIS YEAR AND RIDING THE BUS IS MUCH LESS COMMON IN [CONTRA COSTA] COUNTY THAN IN THE REGION AS A WHOLE.

Figure 24 shows the reasons people said their commutes were getting better or worse. The most common reasons for improved conditions were changing home or job location, roadway improvements, and lighter traffic. Roadway improvements is a significantly more common response for Contra Costa residents than the region as a whole. Like the region, heavier traffic was the most common reason for worsening conditions.

Respondents from Contra Costa were also asked if they had heard of the Contra Costa Commute Incentive Program. Most (85%) had not heard of the program. Of the 15% who had heard of the program, almost 40% could not describe what it was (Table 19). ♦

COMMUTE DISTANCE AND TIME ARE... LONGER FOR CONTRA COSTA RESIDENTS THAN THE REGION, BUT...SPEEDS ARE FASTER...

Figure 23

HOV LANE USE AND EFFECTIVENESS: CONTRA COSTA

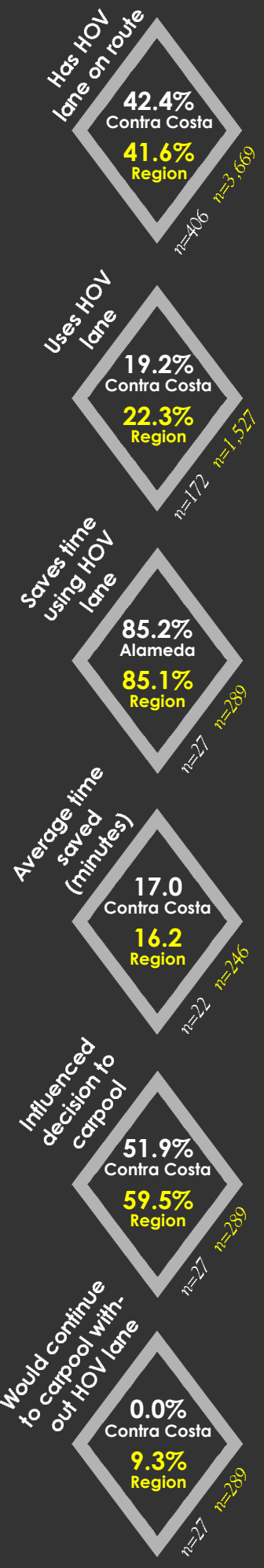
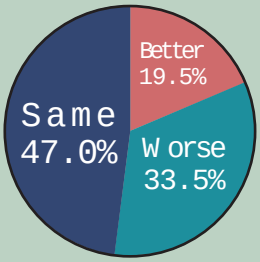
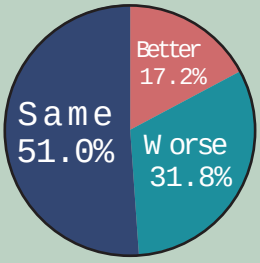


Figure 24

CONTRA COSTA COMMUTE CONDITIONS



Contra Costa
n=406



Region
n=3,606

HOW COMMUTE HAS GOTTEN BETTER OR WORSE

Better	Contra Costa	Region
Moved home/ job location	28.7%	39.2%
Traffic lighter	17.2%	23.7%
Changed route	6.9%	10.9%
Roadway improvements	24.1%	10.4%
Changed mode	5.7%	8.4%
Better transit service	4.6%	5.8%
Travel at different time	4.6%	3.4%
Less road work	3.4%	1.1%
Weather improved	0.0%	0.5%
Other	3.4%	6.6%

Better (Contra Costa) n=79; (region) n=618

Worse	Contra Costa	Region
Traffic heavier	67.9%	70.2%
Transit slower/ more crowded	6.9%	8.2%
Moved home/ job location	5.7%	6.9%
Construction delays	6.3%	3.9%
Changed mode	1.3%	1.4%
Travel at different time	2.5%	1.9%
Poor drivers	0.6%	1.2%
Road work	1.3%	1.3%
Lack of roadway improvements	1.9%	1.1%
Traffic lights	1.3%	0.7%
Weather worse	0.0%	0.4%
Other	4.4%	2.0%

Worse (Contra Costa) n=136; (region) n=1,144

Table 19

contra costa incentive program	
Cannot describe it	38.2%
Other	20.6%
Vanpool	17.6%
Transit tickets	8.8%
Carpool scrip	8.8%
Guaranteed Ride Home	5.9%
	n=34

COUNTY PROFILE: MARIN

Most Marin County residents get to work by driving alone (64%), carpooling (15%), or riding the bus (13%). The drive-alone rate of Marin County residents is slightly lower than the region's but has increased slightly from 1996. Bus ridership is higher in Marin than the region, which is not surprising considering their comprehensive bus system (Golden Gate Transit). In general, the mode split of Marin County residents has changed little over the years as shown in Table 20.

...MARIN COUNTY RESIDENTS GET TO WORK BY DRIVING ALONE (64%), CARPOOLING (15%), OR RIDING THE BUS (13%). THE DRIVE-ALONE RATE OF MARIN...RESIDENTS IS SLIGHTLY LOWER THAN THE REGION'S...

Clustered modes show somewhat greater variation (Figure 25). Driving alone and transit use are at a midpoint between the 1994 and 1996

Table 20

MARIN PRIMARY COMMUTE MODE

	1994	1996	1999
Drive alone	66.0%	60.9%	64.3%
Carpool	13.5%	14.7%	14.5%
Bus	8.0%	13.9%	12.5%
Walk	5.5%	2.5%	2.8%
Ferry	2.0%	3.5%	2.5%
Telecommute	0.5%	2.2%	2.0%
Bicycle	3.0%	1.7%	0.8%
BART	0.0%	0.0%	0.5%
Light rail	0.0%	0.0%	0.3%
Vanpool	0.5%	0.0%	0.0%
Caltrain	0.3%	0.0%	0.0%
Other	0.3%	0.2%	0.0%
Motorcycle	0.5%	0.2%	0.0%
		n=400	*n=400*

Figure 25

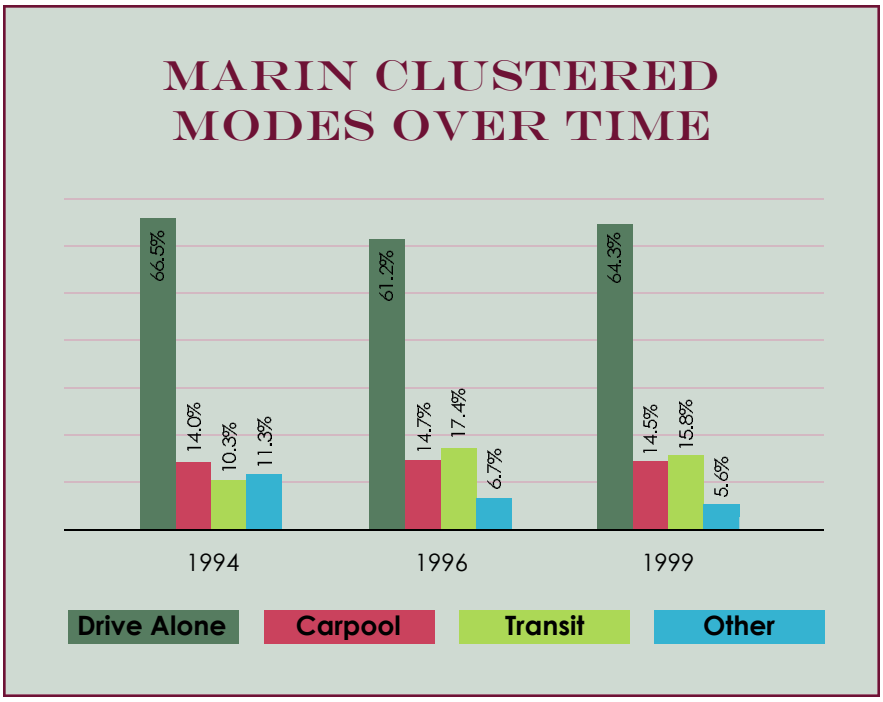
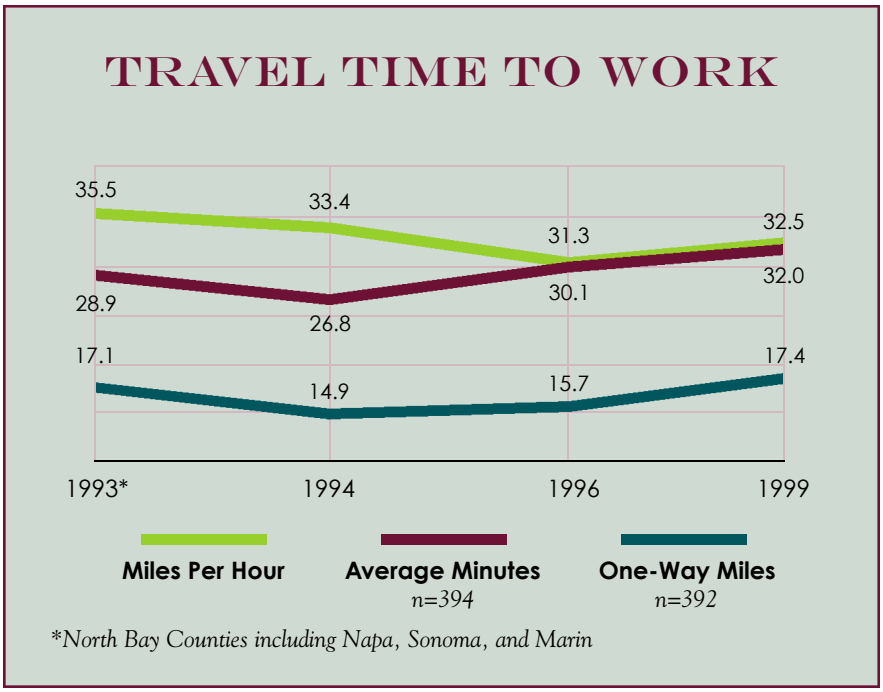


Figure 26



numbers, carpooling has remained steady and "other" mode use has declined.

COMMUTE DISTANCE AND TIME

The commute distance and time of Marin County commuters are the same as the region, taking an average of 32 minutes to travel 17 miles—at an average speed of 33 miles per hour (Figure 26). Like the region as a whole, commute distance and time have increased over recent years. However, commute speed has remained relatively constant and very similar to the region.

BUS RIDERSHIP IS HIGHER IN MARIN THAN THE REGION, WHICH IS NOT SURPRISING CONSIDERING THEIR COMPREHENSIVE BUS SYSTEM (GOLDEN GATE TRANSIT).

CARPOOL LANES

Figure 27 displays the results of questions on use and effectiveness of HOV lanes used by Marin County residents. Not surprisingly, significantly more Marin County residents reported having a carpool lane on their route to work than the region's commuters did. However, about the same portion reported using it and saving time by using it. Unexpectedly, fewer reported that the carpool lane influenced their mode choice.

...SIGNIFICANTLY MORE MARIN COUNTY RESIDENTS REPORTED HAVING A CARPOOL LANE ON THEIR ROUTE TO WORK THAN THE REGION... FEWER REPORTED THAT THE CARPOOL LANE INFLUENCED THEIR MODE CHOICE.

Figure 27

HOV LANE USE AND EFFECTIVENESS: MARIN

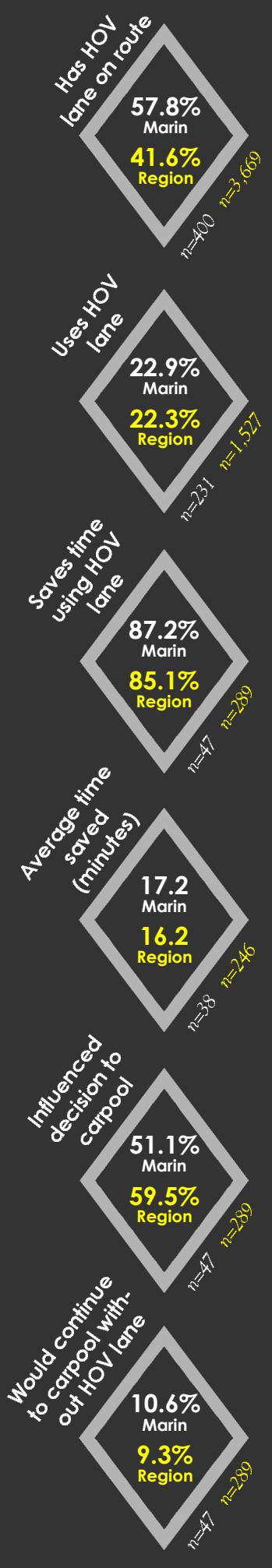
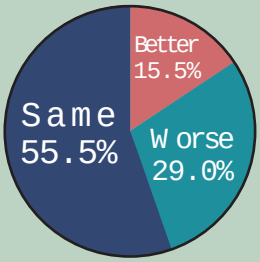
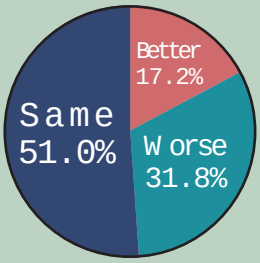


Figure 28

MARIN COMMUTE CONDITIONS



Marin
n=400



Region
n=3,606

HOW COMMUTE HAS GOTTEN BETTER OR WORSE

Better	Marin	Region
Moved home/ job location	20.6%	39.2%
Traffic lighter	36.5%	23.7%
Changed route	9.5%	10.9%
Roadway improvements	6.3%	10.4%
Changed mode	12.7%	8.4%
Better transit service	6.3%	5.8%
Travel at different time	1.6%	3.4%
Less road work	0.0%	1.1%
Weather improved	1.6%	0.5%
Other	3.2%	6.6%

Better (Marin) n=62; (region) n=618

Worse (Marin) n=116; (region) n=1,144

Worse	Marin	Region
Traffic heavier	73.3%	70.2%
Transit slower/ more crowded	9.9%	8.2%
Moved home/ job location	4.6%	6.9%
Construction delays	2.3%	3.9%
Changed mode	0.8%	1.4%
Travel at different time	2.3%	1.9%
Poor drivers	1.5%	1.2%
Road work	1.5%	1.3%
Lack of roadway improvements	0.0%	1.1%
Traffic lights	0.8%	0.7%
Weather worse	0.8%	0.4%
Other	0.8%	2.0%

Changing Commute Conditions

More Marin County residents reported that their commute conditions were about the same (56%) this year as last compared with the region, and slightly fewer indicated it was better (16%) or worse (29%) than a year ago.

Figure 28 shows the reasons people said their commute was getting better or worse. The most common reasons for improved conditions are lighter traffic, moving job or home location, and changing modes. Compared with the region's results, significantly more reported lighter traffic and fewer reported changing home or job location. Like the region, by far the most common reason for worsening conditions is heavier traffic. This rate is even higher for Marin County residents than the region. ✦

COUNTY PROFILE: NAPA

Napa County residents get to work primarily by driving alone (74%) or carpooling (19%). The drive-alone rate of Napa County residents has remained relatively constant over the years (Table 21). Compared with the region as a whole, more Napa County residents drive alone to work. Unlike the region, the only other option mentioned with any frequency is carpooling. This is likely the result of lower density development and less transit availability.

Figure 29, which displays the clustered commute modes, shows an increase in carpooling since 1996. However, the 1996 data included both Napa and Sonoma Counties, making the comparison not entirely apt.

COMMUTE DISTANCE AND TIME

Napa County residents' commutes take an average of 26 minutes to go 19 miles, an average of 45 miles per hour. They have commutes that take less time than the region's. They have also taken progressively less time over the years. However, unlike this

NAPA COUNTY RESIDENTS GET TO WORK PRIMARILY BY DRIVING ALONE (74%) OR CARPOOLING (19%)...

Table 21

NAPA PRIMARY COMMUTE MODE

	1994*	1996*	1999
Drive alone	69.5%	73.0%	73.9%
Carpool	18.3%	17.5%	18.8%
Walk	3.3%	3.0%	2.5%
Telecommute	1.5%	1.0%	1.5%
Vanpool	0.3%	0.3%	1.3%
Bus	4.8%	4.0%	0.5%
Ferry	0.0%	0.0%	0.5%
Bicycle	2.0%	0.0%	0.5%
BART	0.3%	0.0%	0.0%
Other	0.0%	1.3%	0.0%
**Napa and Sonoma Counties were combined.*		*n=400*	*n=399*

Figure 29

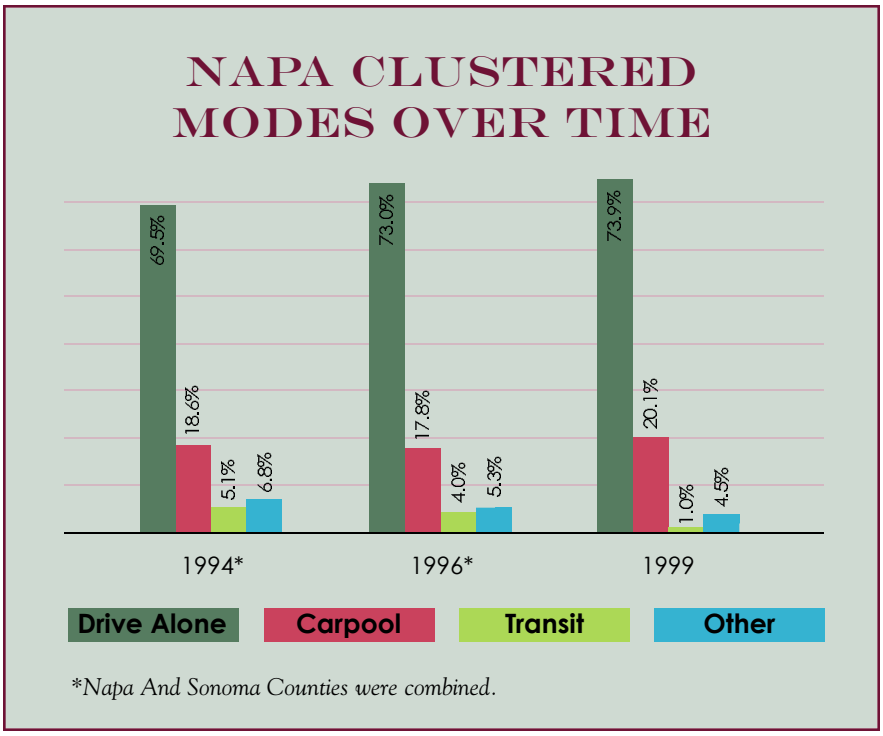
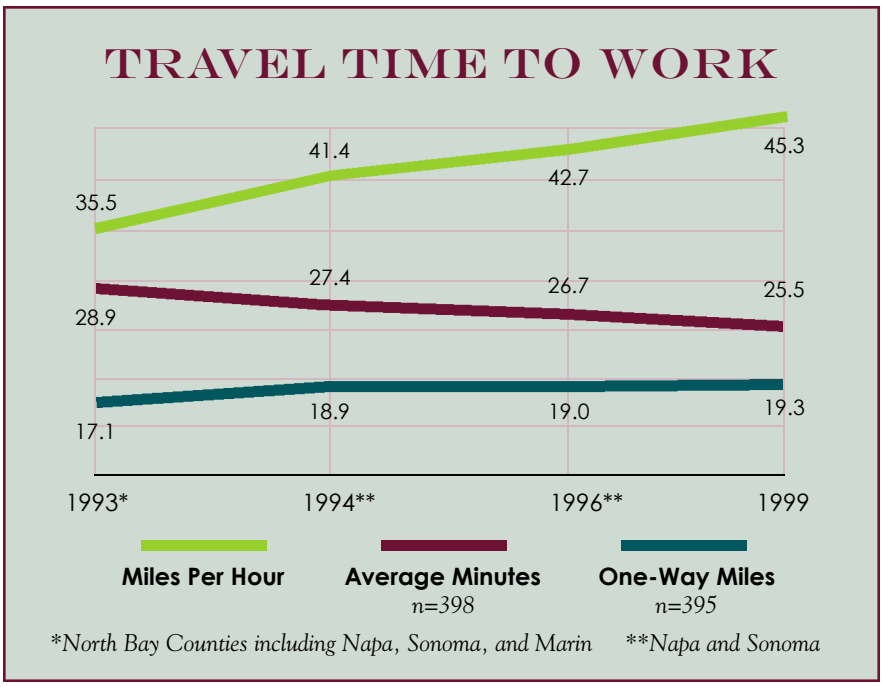


Figure 30



year's results, previous years' results included other North Bay Counties making comparison difficult. The commute distance of Napa County residents is longer than the region's, and their commutes appear to have become faster over the years (Figure 30).

CARPOOL LANES

Figure 31 shows the results of the survey questions on use and effectiveness of HOV lanes. Napa County residents are significantly less likely to have a carpool lane than the region (20% compared with the region's 42%). Of course, this is no surprise since there are no carpool lanes in Napa

...THERE ARE NO CARPOOL LANES IN NAPA COUNTY. HOWEVER, A HIGHER PORTION OF THOSE WHO DO HAVE A CARPOOL LANE [ON THEIR ROUTE] USE IT AND IT SAVES THEM 25 MINUTES AS OPPOSED TO THE REGION'S 16.

County. However, a higher portion of those who do have a carpool lane use it (28% compared to 22%) and it saves them 25 minutes as opposed to the region's 16 minutes. Considering that Napa County residents have to leave their county, and thus travel farther, to have a carpool lane on their route, it is not surprising that it saves them more time. More (68% compared to 60%) were influenced by the lane, but a greater portion (16% compared to 9%) would continue to carpool even if the lane did not exist.

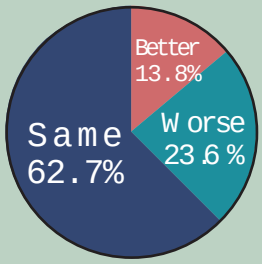
CONSIDERING THAT NAPA COUNTY RESIDENTS HAVE TO LEAVE THEIR COUNTY, AND THUS TRAVEL FARTHER, TO HAVE A CARPOOL LANE ON THEIR ROUTE, IT IS NOT SURPRISING THAT IT SAVES THEM MORE TIME.

Figure 31

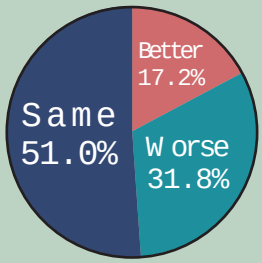
HOV LANE USE AND EFFECTIVENESS: NAPA

Figure 32

NAPA COMMUTE CONDITIONS



Napa
n=399



Region
n=3,606

HOW COMMUTE HAS GOTTEN BETTER OR WORSE

Better	Napa	Region
Moved home/ job location	23.7%	39.2%
Traffic lighter	22.0%	23.7%
Changed route	8.5%	10.9%
Roadway improvements	16.9%	10.4%
Changed mode	6.8%	8.4%
Better transit service	3.4%	5.8%
Travel at different time	5.1%	3.4%
Less road work	1.7%	1.1%
Weather improved	3.4%	0.5%
Other	5.1%	6.6%

Better (Napa) n=55; (region) n=618

Worse	Napa	Region
Traffic heavier	77.1%	70.2%
Transit slower/ more crowded	1.0%	8.2%
Moved home/ job location	3.8%	6.9%
Construction delays	4.8%	3.9%
Changed mode	0.0%	1.4%
Travel at different time	2.9%	1.9%
Poor drivers	3.8%	1.2%
Road work	3.8%	1.3%
Lack of roadway improvements	0.0%	1.1%
Traffic lights	1.9%	0.7%
Weather worse	0.0%	0.4%
Other	0.0%	2.0%

Worse (Napa) n=94; (region) n=1,144

Changing Commute Conditions

Figure 32 shows how respondents answered questions on whether their commute was getting better, worse, or staying the same. Compared to the region, more said their commute was about the same (63% compared to 51%).

Figure 32 also shows how people said that their commutes were getting better or worse. The most common answers why people s commutes had improved were moving their home or work location, lighter traffic, and roadway improvements. Compared to the region, more reported roadway improvements and fewer moving their home or work location. Like the region, but more so, commutes that had gotten worse did so because of heavier traffic (77% compared to 70%). ♦

COUNTY PROFILE: SAN FRANCISCO

The most popular commute modes of San Francisco County's residents are driving alone (40%), riding the bus (28%), and carpooling (11%). These modes seem to have remained relatively constant over the years (Table 22). The 1999 results show a slight increase in carpooling and a decrease in walking. Compared to the region, significantly fewer San Franciscans drive alone to work; however, given the high density, prevalence of transit, and limited availability of parking in San Francisco, it is surprising fewer San Franciscans don't drive. Figure 33 shows the clustered mode splits of the county.

THE MOST POPULAR COMMUTE MODES OF SAN FRANCISCO COUNTY'S RESIDENTS ARE DRIVING ALONE (40%), RIDING THE BUS (28%), AND CARPOOLING (11%)...RESULTS SHOW A SLIGHT INCREASE IN CARPOOLING...

Table 22

SAN FRANCISCO PRIMARY COMMUTE MODE

	1993	1994	1996	1999
Drive alone	40.5%	45.5%	35.8%	40.3%
Bus	24.5%	27.3%	30.3%	27.8%
Carpool	10.5%	8.8%	9.0%	11.3%
Walk	8.0%	8.3%	8.8%	6.5%
BART	6.3%	5.0%	8.5%	6.0%
Bicycle	2.8%	1.0%	2.8%	2.0%
Light rail	3.0%	1.3%	2.0%	2.5%
Telecommute	0.3%	0.8%	0.8%	0.5%
Caltrain	0.8%	1.8%	0.3%	0.5%
Other	2.8%	0.3%	0.3%	0.5%
Vanpool	0.0%	0.3%	0.5%	0.3%
Motorcycle	0.0%	0.5%	1.5%	0.0%
			n=400	*n=400*

Figure 33

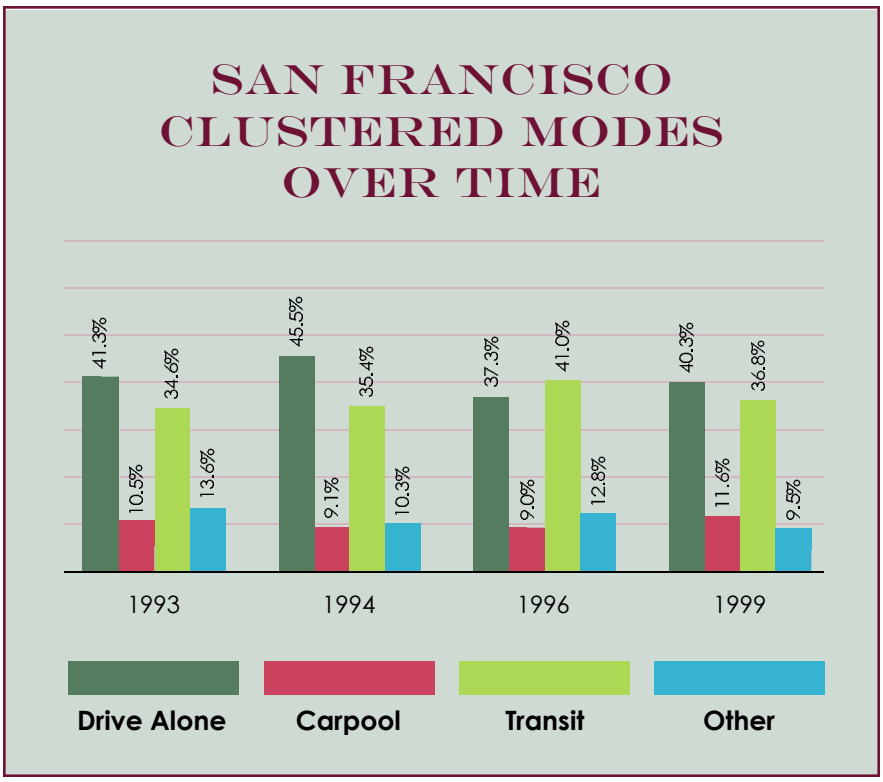
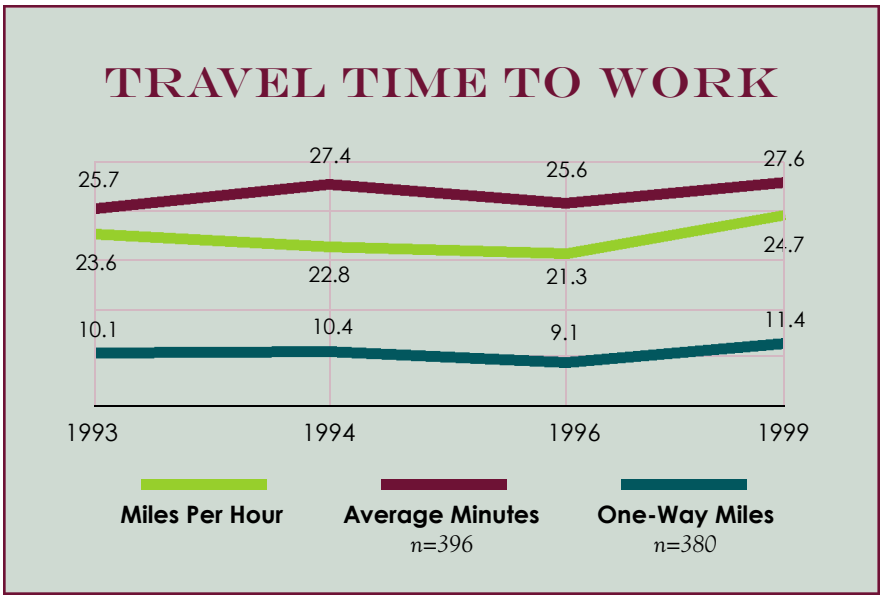


Figure 34



COMMUTE DISTANCE AND TIME

San Franciscans' commutes are shorter and take less time, but are slower than the region's. As displayed in Figure 34, they travel an average of 11 miles in 28 minutes—about 25 miles per hour. Over the years of *Commute Profile* data, commutes of San Francisco residents have stayed relatively consistent.

CARPOOL LANES

Figure 35 shows how respondents answered a variety of questions on carpool lanes. Because fewer San Franciscans commute in cars, it is not surprising that fewer have a carpool lane on their route (21% compared to the region's 42%). Of those who do, more

SAN FRANCISCANS' COMMUTES ARE SHORTER AND TAKE LESS TIME, BUT ARE SLOWER THAN THE REGION'S... THEY TRAVEL AN AVERAGE OF... ABOUT 25 MILES PER HOUR.

(27% compared to 22%) use it. However, it saves only two-thirds of them any time, compared to the region's 85%. They save only 12 minutes compared to the region, which saves an average of 16 minutes. On the other hand, the carpool lane influences the mode of about the same percentage, and none of the respondents reported that they would carpool if the lane did not exist.

CHANGING COMMUTE CONDITIONS

As shown in Figure 36, slightly fewer San Franciscans said that their commute was getting worse than the region, 26% compared to 32%. However, the 17% that said it was getting better is about the same.

COMPARED WITH THE REGION,... MORE SAN FRANCISCANS SAID THEIR TRANSIT SERVICE WAS BETTER... DOUBTLESS RELATED TO THE FACT THAT MORE RIDE TRANSIT.

Figure 35

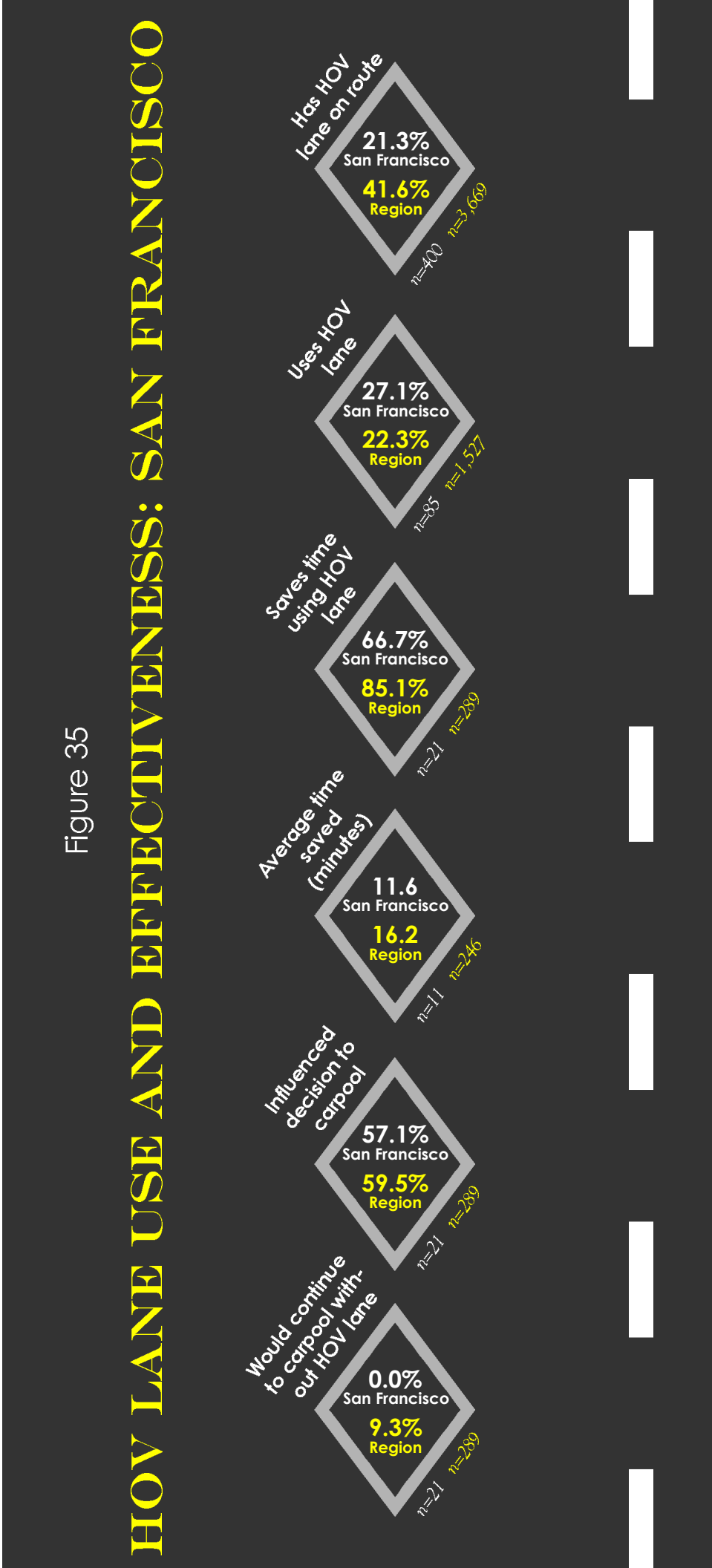
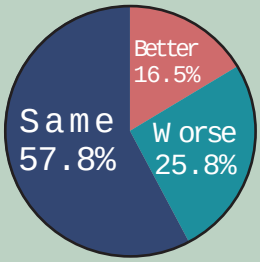
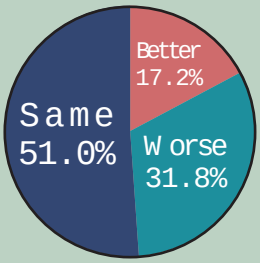


Figure 36

SAN FRANCISCO COMMUTE CONDITIONS



San Francisco
n=400



Region
n=3,606

HOW COMMUTE HAS GOTTEN BETTER OR WORSE

Better	San Francisco	Region
Moved home/ job location	23.5%	39.2%
Traffic lighter	17.6%	23.7%
Changed route	10.3%	10.9%
Roadway improvements	2.9%	10.4%
Changed mode	14.7%	8.4%
Better transit service	20.6%	5.8%
Travel at different time	1.5%	3.4%
Less road work	1.5%	1.1%
Weather improved	0.0%	0.5%
Other	5.9%	6.6%

Better (San Franscico) n=66; (region) n=618

Worse	San Francisco	Region
Traffic heavier	47.2%	70.2%
Transit slower/ more crowded	26.4%	8.2%
Moved home/ job location	4.0%	6.9%
Construction delays	8.0%	3.9%
Changed mode	0.8%	1.4%
Travel at different time	3.2%	1.9%
Poor drivers	0.8%	1.2%
Road work	4.0%	1.3%
Lack of roadway improvements	0.0%	1.1%
Traffic lights	0.0%	0.7%
Weather worse	0.0%	0.4%
Other	3.2%	2.0%

Worse (San Francisco) n=103; (region) n=1,144

When asked how their commute was getting better, the most common answers were moving their home or work location, improved transit service, and lighter traffic. Compared with the region, significantly more San Franciscans said their transit service was better, which is doubtless related to the fact that more ride transit.

Compared with those who said their commutes had gotten worse, a greater portion complained that transit service had gotten worse rather than better. In addition, fewer San Franciscans reported that they had moved their work or home location or traffic had gotten lighter. The most common reasons they gave for worsening conditions were heavier traffic (47%), but to a much lesser extent than the region s 70%, and slower or more crowded transit (26%), to a much greater extent than the region s 8.2%. ♦

COUNTY PROFILE: SAN MATEO

Most residents of San Mateo get into their car to go to work, either driving alone (75%) or carpooling (12%). Compared with past years' results, more are driving alone and fewer are carpooling (Table 23). Likewise, significantly more commuters from San Mateo drive alone and fewer carpool compared with the region. Figure 37 shows the clustered mode splits over time.

COMMUTE DISTANCE AND TIME

Commuters from San Mateo travel an average of 15 miles in 26 minutes to work (Figure 38). This translates to an average speed of 34 miles per hour. Over time, San Mateo County residents are commuting more slowly. However, compared with the region, their commutes are shorter and slightly faster.

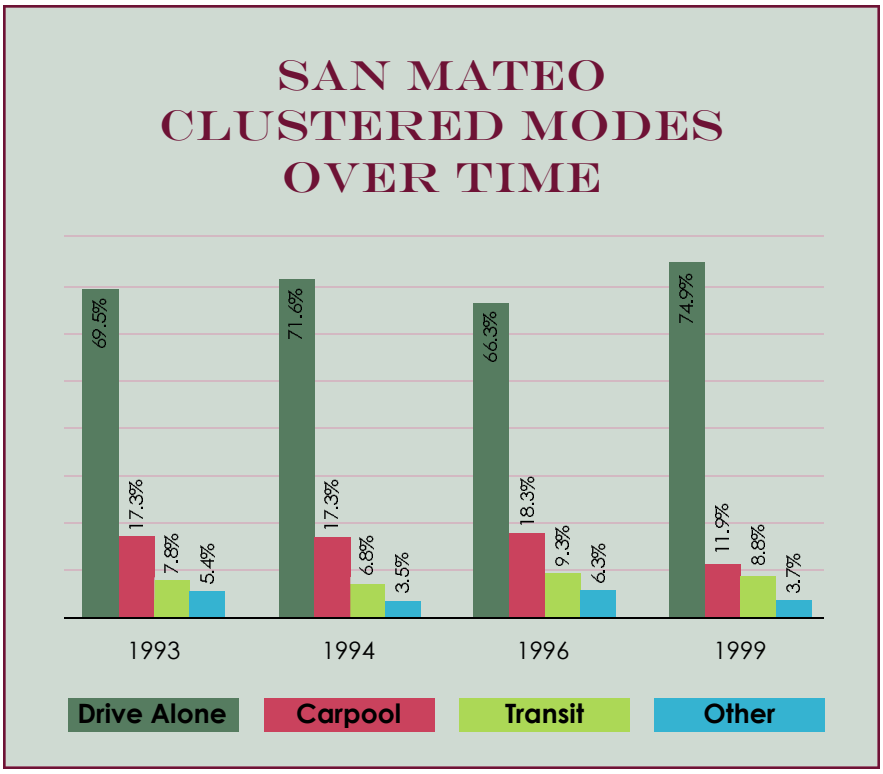
MOST RESIDENTS OF SAN MATEO GET INTO THEIR CARS TO GO TO WORK, EITHER DRIVING ALONE (75%) OR CARPOOLING (12%).

Table 23

SAN MATEO PRIMARY COMMUTE MODE

	1993	1994	1996	1999
Drive alone	69.5%	71.6%	65.8%	74.9%
Carpool	17.3%	17.3%	18.3%	11.9%
BART	2.8%	1.5%	3.5%	3.4%
Bus	2.5%	4.3%	2.5%	2.9%
Walk	1.8%	1.3%	2.3%	2.4%
Caltrain	2.5%	2.0%	3.3%	2.2%
Telecommute	0.5%	1.0%	0.5%	0.7%
Bicycle	2.8%	1.3%	2.3%	0.7%
Light rail	0.0%	0.0%	0.0%	0.2%
Motorcycle	0.0%	0.3%	0.5%	0.0%
Other	0.0%	0.0%	1.3%	0.0%
			n=400	*n=411*

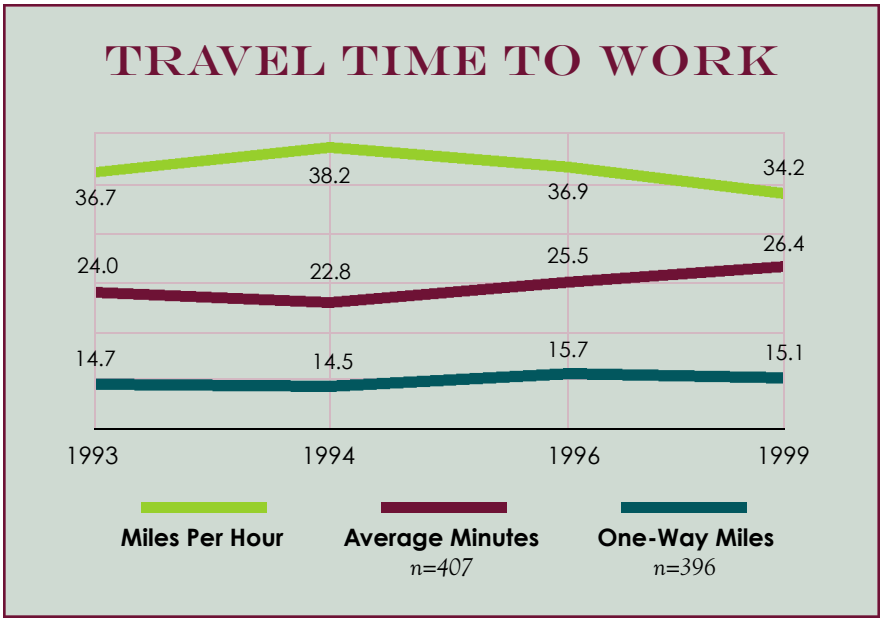
Figure 37



CARPOOL LANES

As shown by the survey results displayed in Figure 39, San Mateo County has few carpool lanes. Only 28% of its residents have a carpool lane on their route compared with the region's 42%. More remarkably, only 9% of surveyed residents use the carpool lane; in the region, 22% use the carpool lane. However, all of them reported that the lane saved them time, an average of only 12 minutes, compared with the region's 16 minutes. The carpool lane influenced only 44% of San Mateo residents in their commute choice; however, none of them reported that they would continue to carpool if the lanes did not exist.

Figure 38



...SIGNIFICANTLY MORE COMMUTERS FROM SAN MATEO [COUNTY] DRIVE ALONE AND FEWER CARPOOL COMPARED WITH THE REGION.

CHANGING COMMUTE CONDITIONS

When asked if their commutes were getting better, worse, or staying the same, slightly more San Mateo residents said that their commute had gotten worse—34% compared to the region's 32%.

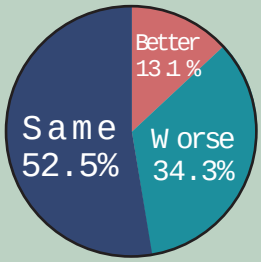
As shown in Figure 40, the most common reasons for improved commute conditions were moving their home or work locations, lighter traffic, and changed route. Compared with the region, more San Mateo residents reported changing their work or home location. The main reason for worsening conditions is heavier traffic; 78% of San Mateo residents gave that response compared to the region's 70%.♦

THE CARPOOL LANE INFLUENCED ONLY 44% OF SAN MATEO RESIDENTS IN THEIR COMMUTE CHOICE; HOWEVER, NONE OF THEM... WOULD CONTINUE TO CARPOOL IF THE LANES DID NOT EXIST.

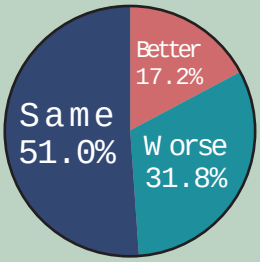
Figure 39

Figure 40

SAN MATEO COMMUTE CONDITIONS



San Mateo
n=411



Region
n=3,606

How commute has gotten better or worse

Better	San Mateo	Region
Moved home/ job location	47.4%	39.2%
Traffic lighter	21.1%	23.7%
Changed route	10.5%	10.9%
Roadway improvements	3.5%	10.4%
Changed mode	7.0%	8.4%
Better transit service	1.8%	5.8%
Travel at different time	3.5%	3.4%
Less road work	0.0%	1.1%
Weather improved	0.0%	0.5%
Other	3.5%	6.6%

Better (San Mateo) n=54; (region) n=618

Worse	San Mateo	Region
Traffic heavier	78.3%	70.2%
Transit slower/ more crowded	2.0%	8.2%
Moved home/ job location	6.6%	6.9%
Construction delays	5.9%	3.9%
Changed mode	0.0%	1.4%
Travel at different time	0.7%	1.9%
Poor drivers	0.7%	1.2%
Road work	1.3%	1.3%
Lack of roadway improvements	0.0%	1.1%
Traffic lights	0.7%	0.7%
Weather worse	1.3%	0.4%
Other	2.0%	2.0%

Worse (San Mateo) n=141; (region) n=1,144

COUNTY PROFILE: SANTA CLARA

Most residents of Santa Clara (77%) drive alone to work. Carpooling is a distant second (15%). Driving alone decreased slightly from last year and bus use increased slightly (Table 24). Figure 41 shows the clustered commute modes over time.

MOST RESIDENTS OF SANTA CLARA (77%) DRIVE ALONE TO WORK. CARPOOLING IS A DISTANT SECOND (15%). DRIVING ALONE DECREASED SLIGHTLY FROM LAST YEAR AND BUS USE INCREASED SLIGHTLY.

Table 24

SANTA CLARA PRIMARY COMMUTE MODE

	1993	1994	1995	1996	1998	1999
Drive alone	77.5%	70.3%	70.3%	73.8%	77.3%	76.7%
Carpool	15.3%	17.3%	21.3%	18.1%	18.3%	15.1%
Bus	2.3%	3.5%	3.0%	2.5%	1.3%	3.0%
Caltrain	1.0%	0.8%	1.0%	0.8%	1.8%	1.5%
Telecommute	0.3%	0.8%	0.3%	0.3%	0.0%	1.0%
Light rail	0.3%	2.0%	0.3%	0.0%	0.5%	0.7%
Walk	1.8%	2.3%	1.0%	0.8%	0.5%	0.7%
Bicycle	1.3%	1.8%	1.8%	1.5%	0.0%	0.5%
Vanpool	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
BART	0.0%	0.5%	0.0%	0.0%	0.3%	0.0%
Motorcycle	0.5%	1.0%	0.3%	0.5%	0.0%	0.0%
Other	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%
					n=383	*n=403*

Figure 41

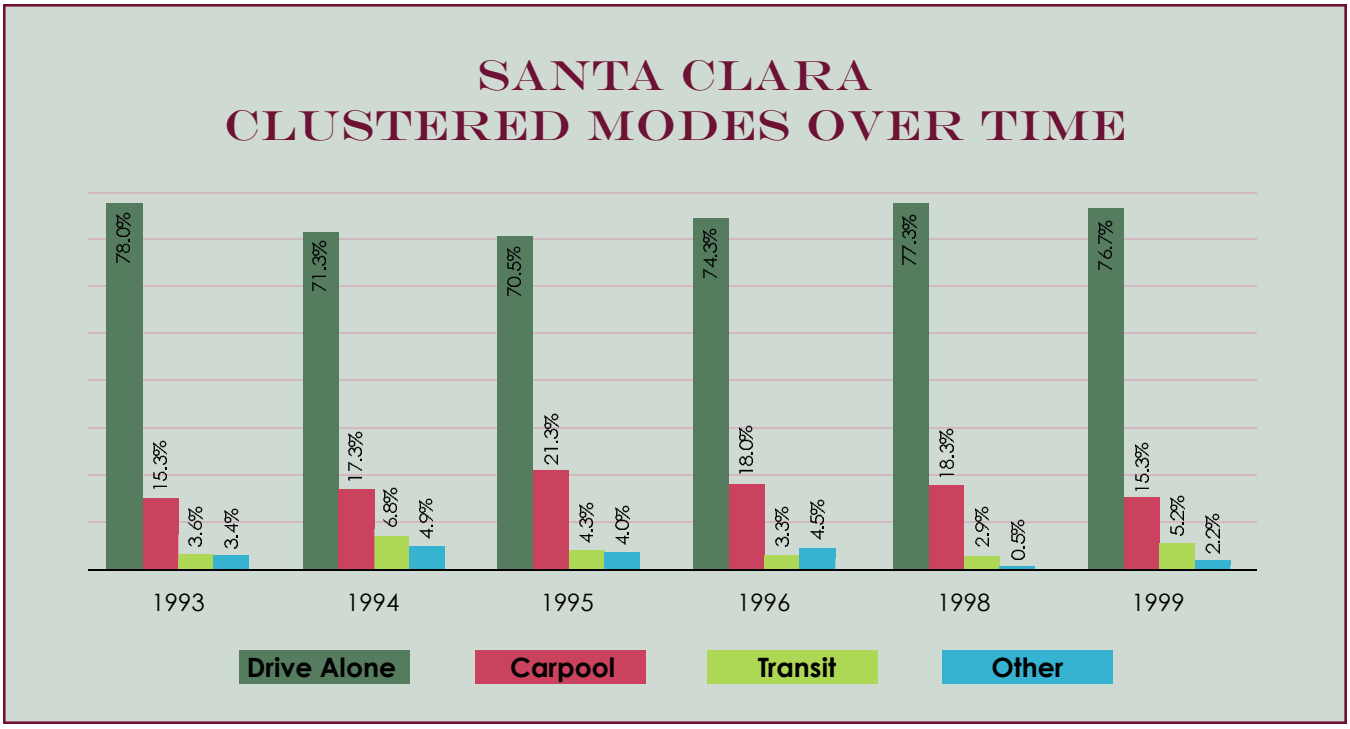
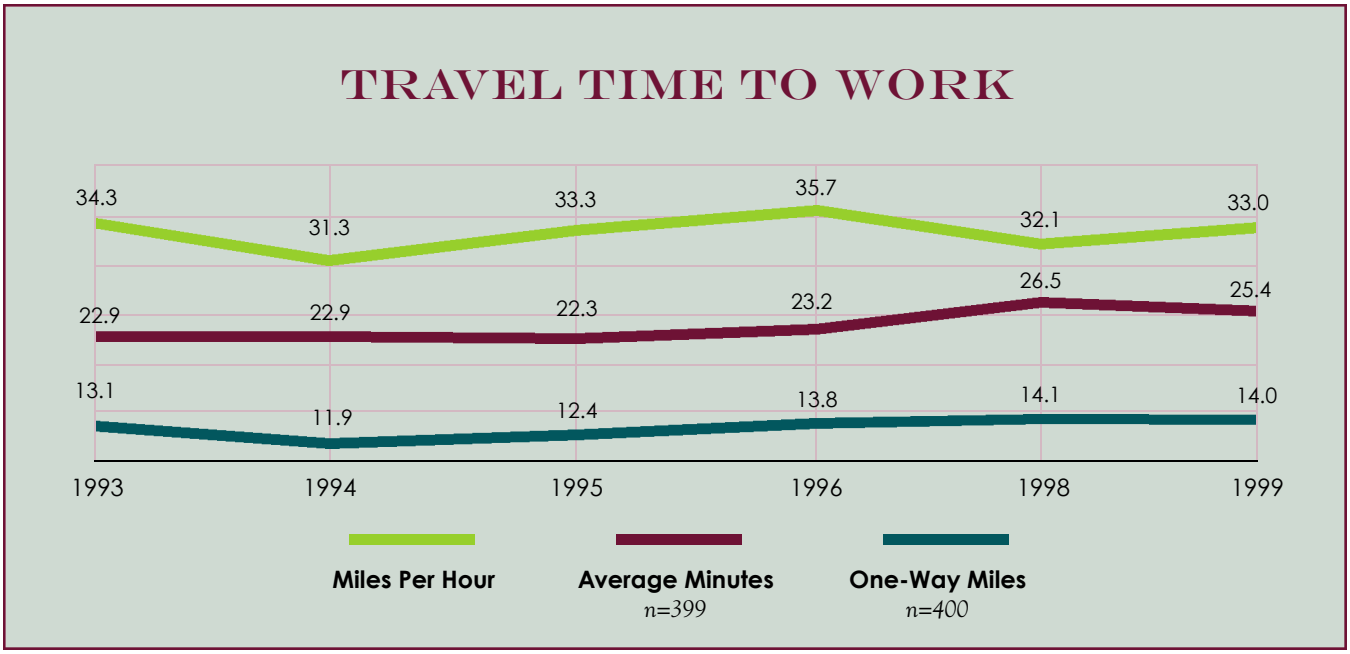


Figure 42



COMMUTE DISTANCE AND TIME

Residents of Santa Clara County commute an average of 14 miles in about 25 minutes, for an average speed of 33 miles per hour (Figure 42). Over the years of survey results, distance and time appear to have increased slightly while speed has remained more or less the same. Compared with the region, Santa Clara residents have slightly shorter commutes but travel at about the same speed.

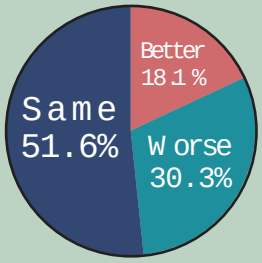
CARPOOL LANES

Figure 43 shows the responses Santa Clara residents gave to questions on carpool lanes. Not surprisingly considering Santa Clara's extensive HOV lane network, more said that there was a carpool lane on their route. However, fewer reported using the carpool lane. In terms of time savings, Santa Clara's results were about the same as the region, with 84% saying it saves them time, an average of 16 minutes. Slightly more (65% compared with 60%) said that the carpool lane influenced their mode decisions, but about the same percentage as the region said they would still carpool even if the lanes did not exist.

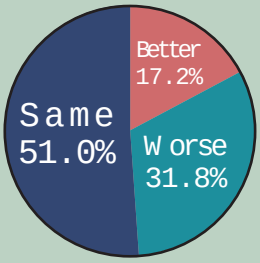
Figure 43

Figure 44

SANTA CLARA COMMUTE CONDITIONS



Santa Clara
n=403



Region
n=3,606

HOW COMMUTE HAS GOTTEN BETTER OR WORSE

Better	Santa Clara	Region
Moved home/ job location	34.2%	39.2%
Traffic lighter	21.1%	23.7%
Changed route	15.8%	10.9%
Roadway improvements	9.2%	10.4%
Changed mode	10.5%	8.4%
Better transit service	2.6%	5.8%
Travel at different time	0.0%	3.4%
Less road work	1.3%	1.1%
Weather improved	1.3%	0.5%
Other	3.9%	6.6%

Better (Santa Clara) n=73; (region) n=618

Worse	Santa Clara	Region
Traffic heavier	77.7%	70.2%
Transit slower/ more crowded	5.8%	8.2%
Moved home/ job location	5.0%	6.9%
Construction delays	2.2%	3.9%
Changed mode	1.4%	1.4%
Travel at different time	2.2%	1.9%
Poor drivers	2.2%	1.2%
Road work	0.0%	1.3%
Lack of roadway improvements	0.0%	1.1%
Traffic lights	0.7%	0.7%
Weather worse	0.0%	0.4%
Other	1.4%	2.0%

Worse (Santa Clara) n=122; (region) n=1,144

Changing Commute Conditions

When asked if their commute had gotten better, worse, or stayed the same, 18% of Santa Clara residents said better, 30% worse, and 52% said their commute was about the same. These results are almost identical to the region s.

Figure 44 shows the reasons people thought their commute had gotten better or worse. Like the region, the most common reasons their commutes had improved were changes in home or job location, lighter traffic, or changing route. More of them reported changing their route. Also like the region but in this case more so, the most common reason for worsening conditions was heavier traffic (78% compared with 70%). ✦

COUNTY PROFILE: SOLANO

Solano County residents get to work primarily by driving alone (66%) or carpooling (21%). Over time, the drive-alone rate has declined (Table 25). However, the carpool rate in Solano County has remained relatively constant. Vanpooling, the bus, and ferry riding have increased from past survey results. Solano's drive alone rate is very similar to the region as a whole, but its carpool rate is somewhat higher. On the other hand, riding transit is much less common in Solano County. Figure 45 shows the clustered mode split.

COMMUTE DISTANCE AND TIME

As shown in Figure 46, Solano County residents commute an average of 27 miles in 33 minutes, for an average speed of 48 miles per hour. The 1999 results are slightly lower than

SOLANO'S DRIVE ALONE RATE IS VERY SIMILAR TO THE REGION AS A WHOLE, BUT ITS CARPOOL RATE IS SOMEWHAT HIGHER.

Table 25

SOLANO PRIMARY COMMUTE MODE

	1993	1994	1995	1996	1998	1999
Drive alone	67.8%	72.0%	72.0%	66.3%	76.5%	65.8%
Carpool	20.1%	20.0%	19.3%	20.8%	16.3%	20.5%
Vanpool	5.3%	2.3%	2.3%	2.3%	2.0%	4.0%
Bus	2.3%	1.3%	0.8%	1.5%	1.5%	3.0%
BART	1.0%	1.3%	1.3%	3.0%	1.8%	2.0%
Walk	0.8%	1.3%	1.3%	2.3%	0.5%	1.5%
Ferry	0.3%	0.3%	0.5%	0.0%	0.5%	1.3%
Telecommute	0.5%	0.5%	0.8%	1.0%	0.0%	1.0%
Motorcycle	1.0%	0.3%	0.8%	0.3%	0.0%	0.5%
Bicycle	0.5%	0.8%	0.3%	2.3%	0.0%	0.5%
Other	0.8%	0.3%	1.0%	0.5%	1.0%	0.0%
						n=400

Figure 45

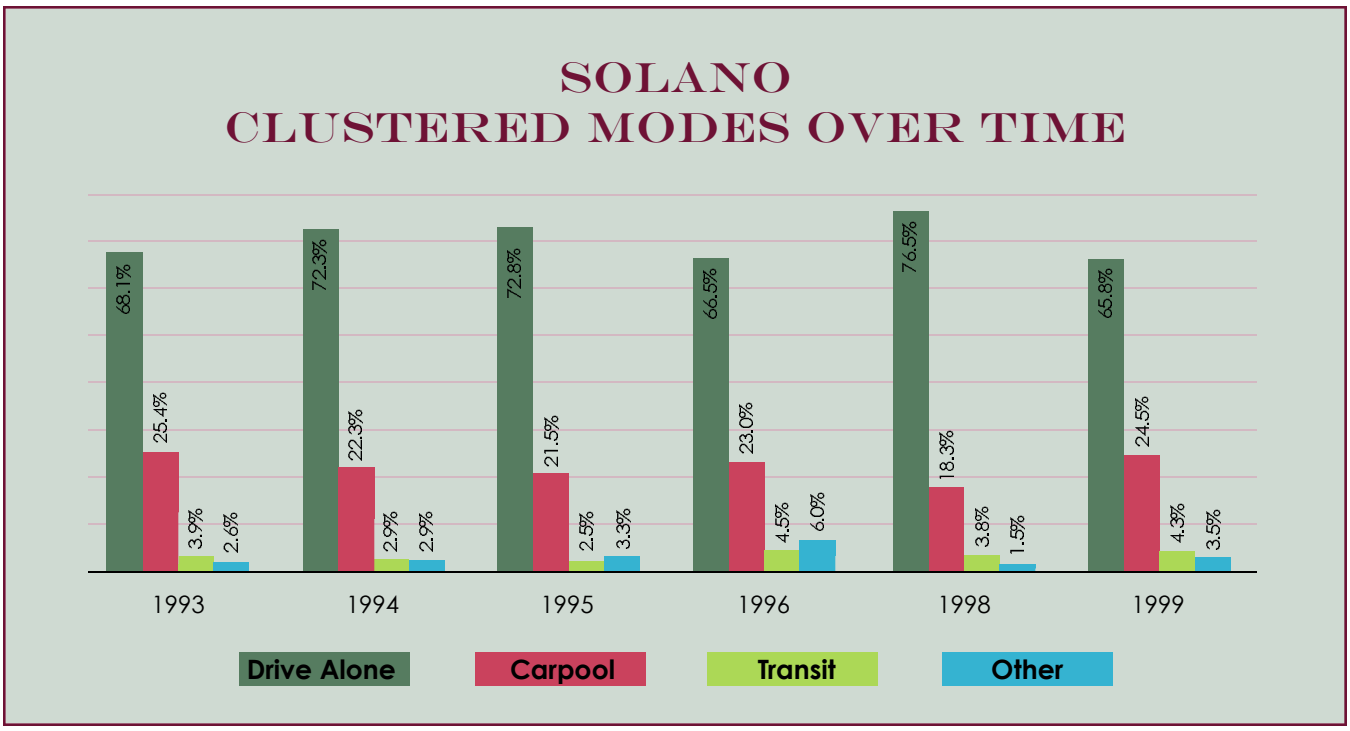
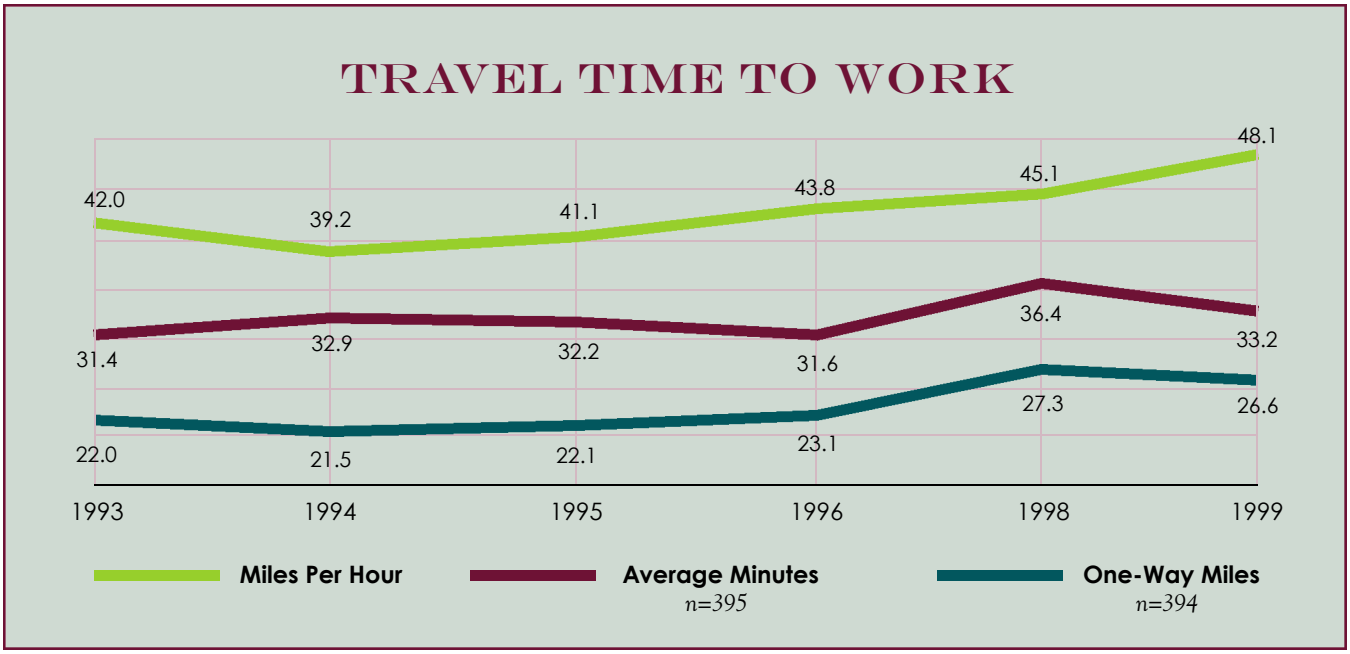


Figure 46



the results of the 1998 survey, but similar to results recorded before that. However, the speed of Solano County residents' commutes is faster this year. Compared with the region's results, Solano County commuters have a longer commute that takes about the same amount of time, indicating a much faster travel speed.

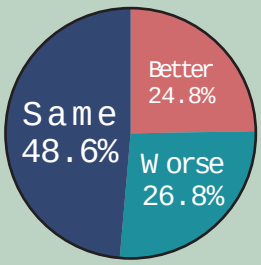
CARPOOL LANES

Compared with the region, Solano County residents are just as likely to have a carpool lane on their route to work. More than a third of them (36%) reported using the carpool lane, which is quite a bit more than the region (Figure 47). In addition, slightly more of them save time by using the lane, an average of 21 minutes, which is higher than the region's average of 16 minutes. This is not surprising considering that Solano County residents have longer commutes; potential time saved is likely to be proportional to commute distance. In addition, a smaller percentage of Solano County commuters would carpool even if the lane did not exist, indicating the relatively high level of effectiveness of the carpool lanes for these commuters.

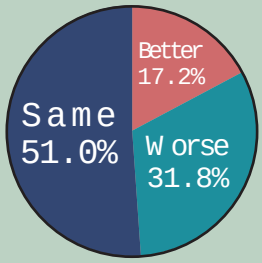
Figure 47

Figure 48

SOLANO COMMUTE CONDITIONS



Solano
n=400



Region
n=3,606

HOW COMMUTE HAS GOTTEN BETTER OR WORSE

Better	Solano	Region
Moved home/ job location	18.5%	39.2%
Traffic lighter	25.9%	23.7%
Changed route	1.9%	10.9%
Roadway improvements	19.4%	10.4%
Changed mode	14.8%	8.4%
Better transit service	4.6%	5.8%
Travel at different time	5.6%	3.4%
Less road work	0.9%	1.1%
Weather improved	0.9%	0.5%
Other	6.5%	6.6%

Better (Solano) n=99; (region) n=618

Worse	Solano	Region
Traffic heavier	61.8%	70.2%
Transit slower/ more crowded	7.3%	8.2%
Moved home/ job location	8.9%	6.9%
Construction delays	0.8%	3.9%
Changed mode	2.4%	1.4%
Travel at different time	1.6%	1.9%
Poor drivers	1.6%	1.2%
Road work	1.6%	1.3%
Lack of roadway improvements	1.6%	1.1%
Traffic lights	0.8%	0.7%
Weather worse	0.8%	0.4%
Other	8.1%	2.0%

Worse (Solano) n=107; (region) n=1,144

Changing Commute Conditions

When asked if their commutes were getting better, worse, or staying about the same, more Solano County residents reported that their commute was getting better (25%) and fewer worse (27%) than the region.

Figure 48 shows the reasons commuters gave for conditions getting better or worse. The main reasons for improved conditions were lighter traffic, roadway improvements, and commuters moving their home or job location. The portion that reported moving their home or job location is significantly less than in the region s results. Roadway improvements and changing mode are significantly more common reasons for improved conditions for Solano County residents. Like the region, by far the most common reason for conditions worsening is heavier traffic; however, this rate is significantly lower than the regional average (62% compared with 70%). ♦

COUNTY PROFILE: SONOMA

As shown in Table 26, residents of Sonoma County primarily get to work by driving alone (74%) or carpooling (16%). The results of the 1994 and 1996 surveys are not entirely comparable because they also included Napa County. However, compared with those survey results, more people are driving alone and fewer are carpooling. Compared with the region's results, driving alone and carpooling are slightly more popular in Sonoma County. Figure 49 shows the clustered mode split.

...RESIDENTS OF SONOMA COUNTY PRIMARILY GET TO WORK BY DRIVING ALONE (74%) OR CARPOOLING (16%)... COMPARED WITH THE REGION...DRIVING ALONE AND CARPOOLING ARE SLIGHTLY MORE POPULAR IN SONOMA...

COMMUTE DISTANCE AND TIME

Figure 50 shows that Sonoma County residents commute an average of 21 miles in 31 minutes, for an average speed of 41 miles per hour. Both the distance and time of Sonoma County residents' commutes have increased compared

Table 26

SONOMA PRIMARY COMMUTE MODE

	1994*	1996*	1999
Drive alone	69.5%	73.0%	74.3%
Carpool	18.3%	17.5%	16.3%
Bus	4.8%	4.0%	4.2%
Bicycle	2.0%	0.0%	1.5%
Walk	3.3%	3.0%	1.2%
Telecommute	1.5%	1.0%	1.2%
Motorcycle	0.0%	0.0%	0.7%
Vanpool	0.3%	0.3%	0.2%
BART	0.3%	0.0%	0.2%
Other	0.0%	1.3%	0.0%
**Napa and Sonoma Counties were combined.*		*n=400*	*n=405*

Figure 49

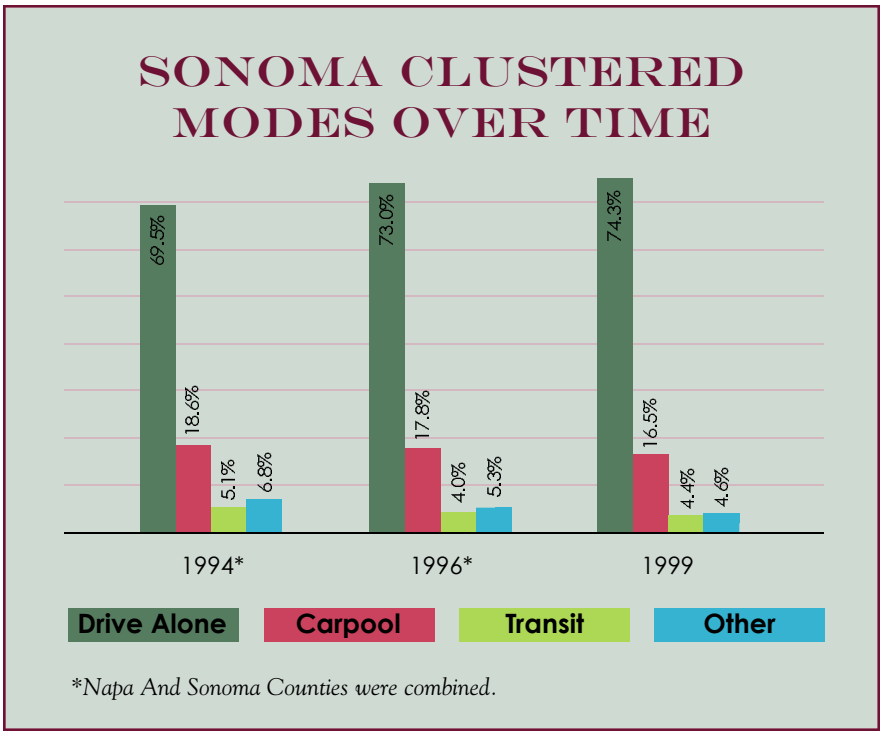
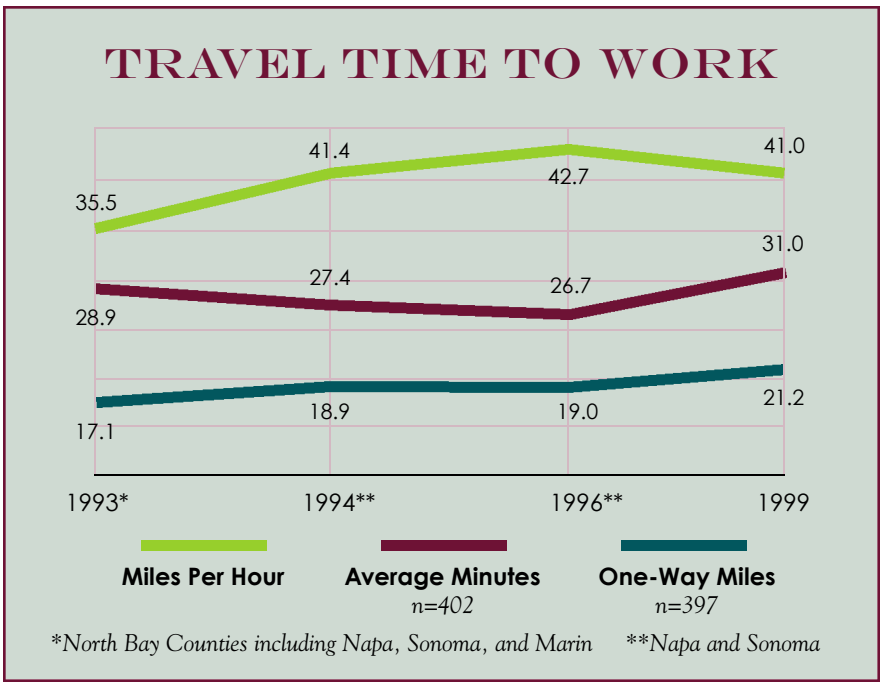


Figure 50



with past results. However, their speed remained relatively constant. Compared with the region's results, Sonoma County residents' commutes are longer, but take about the same amount of time, as a result of faster travel speed.

CARPOOL LANES

Sonoma County residents are significantly less likely to have a carpool lane on their route to work than the region as a whole (Figure 51). However, those that do are more likely to use it. They are likely to save time by using the carpool lane, about 18 minutes, a bit more than the region as a whole. Fifty-nine percent said that the carpool lane

COMPARED WITH THE REGION'S RESULTS, SONOMA COUNTY RESIDENTS' COMMUTES ARE LONGER, BUT TAKE ABOUT THE SAME AMOUNT OF TIME, AS A RESULT OF FASTER TRAVEL SPEED.

influenced their commute choice—less than the region's results. More Sonoma County commuters (15%) reported that they would carpool even if the HOV lane did not exist.

CHANGING COMMUTE CONDITIONS

As shown in Figure 52, 11% of Sonoma County commuters reported their commute was getting better, 44% worse, and 45% about the same. Relative to the regional results, more thought their commute was worse now than it was a year ago.

Figure 52 also shows the reasons people said that their

...11% OF SONOMA COUNTY COMMUTERS REPORTED THEIR COMMUTE WAS GETTING BETTER, 44% WORSE, AND 45% ABOUT THE SAME...MORE THOUGHT THEIR COMMUTE WAS WORSE NOW THAN IT WAS A YEAR AGO.

Figure 51

HOV LANE USE AND EFFECTIVENESS: SONOMA

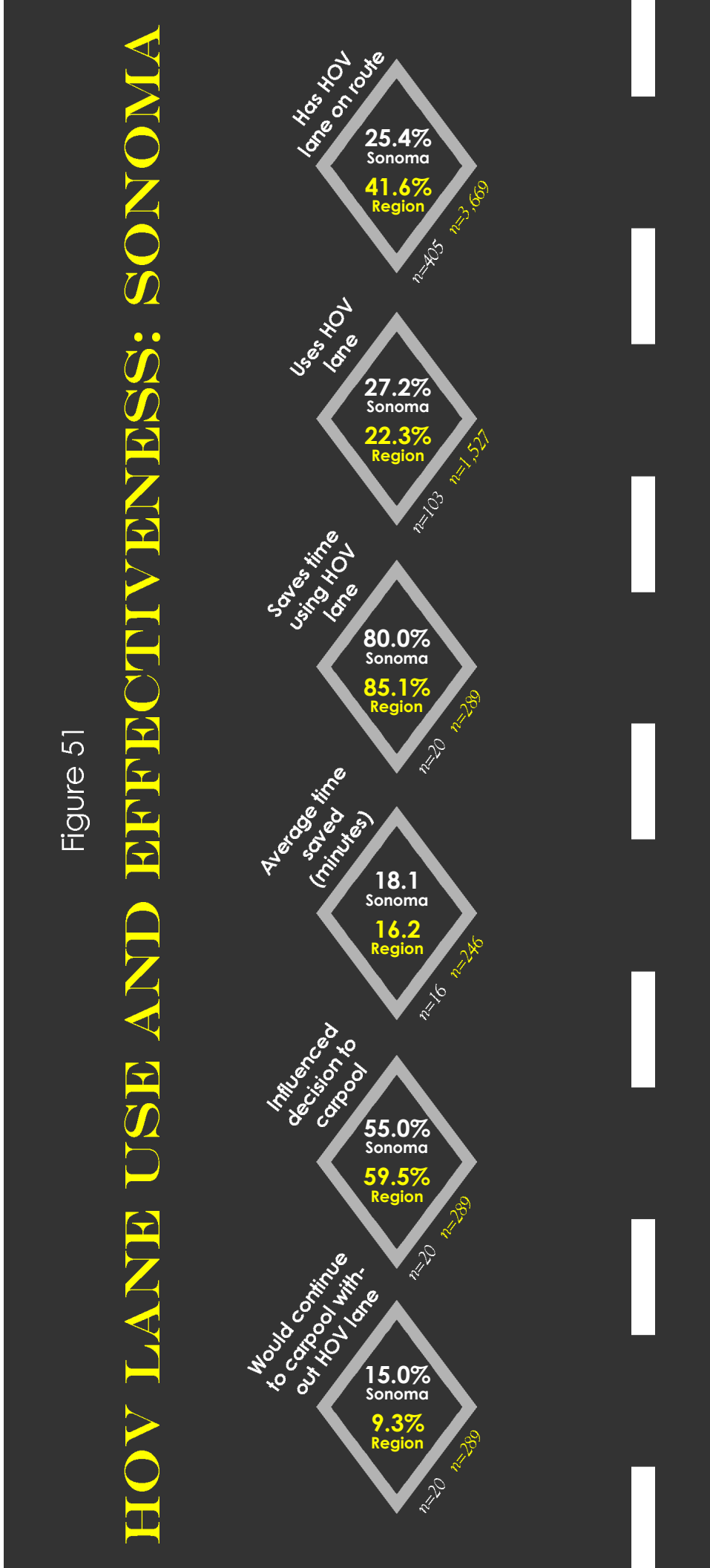
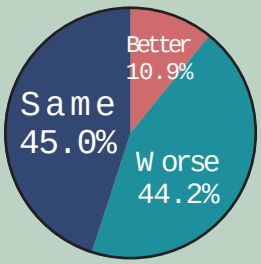
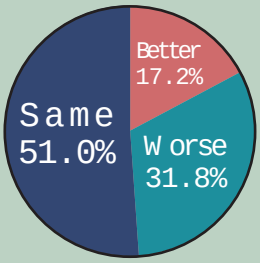


Figure 52

SONOMA COMMUTE CONDITIONS



Sonoma
n=405



Region
n=3,606

How commute has gotten better or worse

Better	Sonoma	Region
Moved home/ job location	25.0%	39.2%
Traffic lighter	31.3%	23.7%
Changed route	16.7%	10.9%
Roadway improvements	4.2%	10.4%
Changed mode	2.1%	8.4%
Better transit service	2.1%	5.8%
Travel at different time	6.3%	3.4%
Less road work	0.0%	1.1%
Weather improved	0.0%	0.5%
Other	12.5%	6.6%

Better (Sonoma) n=44; (region) n=618

Worse	Sonoma	Region
Traffic heavier	73.2%	70.2%
Transit slower/ more crowded	4.8%	8.2%
Moved home/ job location	6.8%	6.9%
Construction delays	2.4%	3.9%
Changed mode	1.4%	1.4%
Travel at different time	1.4%	1.9%
Poor drivers	0.0%	1.2%
Road work	1.0%	1.3%
Lack of roadway improvements	3.9%	1.1%
Traffic lights	0.0%	0.7%
Weather worse	0.0%	0.4%
Other	2.9%	2.0%

Worse (Sonoma) n=179; (region) n=1,144

commute had gotten better or worse. The most common reasons for improved conditions are lighter traffic, moving home or work location, and changing route. Compared with the region s results, more said traffic was lighter or changed route, and fewer said they had moved or changed home or work location or that there wereroadway improvements. Like the region, the most common reason for worsened conditions was heavier traffic, slightly more than the region. ♦

Section 3

APPENDICES

Appendix A

COMMUTE PROFILE 1999 QUESTIONNAIRE

Hello, my name is _____, with [contractor's name], a public opinion research firm. We're talking to people about their commute experiences so commuting in the Bay Area can be improved.

1a. First, do you live in _____ county?

1. Yes (skip to 1c)
2. No

1b. Which county do you live in? _____ [if target county continue with Q1c, otherwise thank and terminate]

1c. How many persons 18 years or older in your household work 35 hours or more a week outside the home?

1. One (skip to 2) 50%
2. More than one 50%

1d. Of these people, I need to speak with the person who had the most recent birthday. Would that person be you?

1. Yes (skip to 2)
2. No

1e. May I speak with that person?

1. Yes (repeat introduction and skip to 2)
2. No/not available now (arrange callback and ask 1f and 1g)

1f. What is the person's name: _____

1g. When is a good time to call: _____

2. Do you currently hold more than one job?

1. Yes 12.1% [IF YES: Please answer the questions in this survey with respect to your primary job and primary work site.]
2. No 87.9%

3. How many days do you work each week?

1	2	3	4	5	6	7
0.8%	1.0%	3.1%	5.7%	78.2%	8.6%	2.6%

I will now ask you some questions about your commute. All of the following questions pertain to your travel to and from work.

4a. How do you usually get to work? [select one]

1.	Drive alone	66.4%	(Skip to 6 after 4b or c)
2.	Carpool	14.4%	(Skip to 5 after 4b or c)
3.	Vanpool	0.4%	(Skip to 5 after 4b or c)
4.	BART	5.1%	(Skip to 7 after 4b or c)
5.	Bus	7.2%	(Skip to 7 after 4b or c)
6.	Caltrain	0.7%	(Skip to 7 after 4b or c)
7.	Altamont Commuter Express	0.2%	(Skip to 7 after 4b or c)
8.	Light rail	0.5%	(Skip to 7 after 4b or c)
9.	Ferry	0.3%	(Skip to 7 after 4b or c)
10.	Bicycle	1.0%	(Skip to 7 after 4b or c)
11.	Motorcycle	0.4%	(Skip to 7 after 4b or c)

12.	Walk or jog	2.0%	(Skip to 7 after 4b or c)
13.	Work at home/telecommute	1.1%	(Skip to 7 after 4b or c)
14.	Other	0.2%	(Skip to 7 after 4b or c)

4b. Would that be _____ [*response to* Q.3] **days a week?**

1.	Yes	95.5%	(follow skip code for normal mode in 4a)
2.	No	4.5%	

4c. How else do you get to work? [select up to 3 most frequently used]

1.	Drive alone	35.7%	(follow skip code for normal mode in 4a)
2.	Carpool	18.1%	(follow skip code for normal mode in 4a)
3.	Vanpool	2.9%	(follow skip code for normal mode in 4a)
4.	BART	8.2%	(follow skip code for normal mode in 4a)
5.	Bus	4.7%	(follow skip code for normal mode in 4a)
6.	Caltrain	2.3%	(follow skip code for normal mode in 4a)
7.	Altamont Commuter Express	0.0%	(follow skip code for normal mode in 4a)
8.	Light rail	2.3%	(follow skip code for normal mode in 4a)
9.	Ferry	0.6%	(follow skip code for normal mode in 4a)
10.	Bicycle	2.3%	(follow skip code for normal mode in 4a)
11.	Motorcycle	1.2%	(follow skip code for normal mode in 4a)
12.	Walk or jog	7.0%	(follow skip code for normal mode in 4a)
13.	Work at home/telecommute	11.7%	(follow skip code for normal mode in 4a)
14.	Other	3.0%	(follow skip code for normal mode in 4a)

[**»** questions for primary mode = carpool or vanpool (Q4a = 2 or 3) **«**]

5a. Including yourself and the driver, what is the total number of persons usually in the vehicle?
_____ mean = 2.84

5b. With whom do you regularly carpool/vanpool? [read choices; select all that apply]

1.	Household members	40.0%	(skip to 7)
2.	Non-household relatives	6.5%	(skip to 7)
3.	Co-workers	36.5%	(skip to 7)
4.	Friends, acquaintances, neighbors	9.5%	(skip to 7)
5.	Someone from a Matchlist/RIDES/755-POOL	1.1%	(skip to 7)
6.	Casual carpool with different people each day	3.5%	(skip to 7)
7.	Other	0.0%	(skip to 7)
9.	RF/DK	3.2%	(skip to 7)

[**»** questions for primary mode = drive alone (Q4a = 1) **«**]

6a. When you say you drive alone to work, do you mean that you never have children or other household members with you? [read choices; select all that apply]

1.	I sometimes have children	9.4%	(ask 6b)
2.	I sometimes have other household members	3.4%	(ask 6b)
3.	I sometimes have "others"	4.1%	(ask 6b)
4.	I never have anyone with me	82.7%	(skip to 7)
9.	RF/DK	0.4%	(skip to 7)

6b. How often do you have other people in the vehicle with you? [select one]

1.	Three to five times per week	58.8%
2.	One to two times per week	21.2%
3.	Less than once per week	20.0%

[**»** questions for all respondents **«**]

7. How long have you been *(using the method of transportation you use)* **to get to work?**
_____ years, or _____ months mean = 9.33 years

8a. What are your reasons for (*using the method of transportation you use?*)
[select a maximum of 3]

1.	Commuting costs	7.9%	(skip to 9)
2.	Comfort/relaxation	3.8%	(skip to 9)
3.	Travel time to work	7.6%	(skip to 9)
4	Can use diamond (HOV, carpool) lane	0.7%	(skip to 9)
5.	Privacy	1.6%	(skip to 9)
6.	Having vehicle during work	4.1%	(skip to 9)
7.	Having vehicle before/after work	2.2%	(skip to 9)
8.	Having vehicle to take kids to daycare/school	2.4%	(skip to 9)
9.	Safety	0.5%	(skip to 9)
10.	No other way to get to work	18.5%	(skip to 9)
11.	Work hours/work schedule	20.4%	(skip to 9)
12.	Not being dependent on others	2.6%	(skip to 9)
13.	Want to get home in an emergency	0.3%	(skip to 9)
14.	Like to come and go as I please	2.2%	(skip to 9)
15.	Environment (reduce pollution/save energy)	0.7%	(skip to 9)
16.	Stress	0.9%	(skip to 9)
17.	Incentives offered by employer/other agency	0.3%	(skip to 9)
18.	Enjoy talking to someone/company	0.4%	(skip to 9)
19.	Convenience	18.3%	(ask 8b)
20.	Flexibility	2.4%	(ask 8b)
21.	Other	0.4%	(skip to 9)

8b. What do you mean by *convenience/flexibility*? [select a maximum of 3]

1.	Commuting costs	8.5%
2.	Comfort/relaxation	6.2%
3.	Travel time to work	12.2%
4.	Privacy	3.6%
5.	Having vehicle during work	5.8%
6.	Having vehicle before/after work	1.9%
7.	Having vehicle to take kids to daycare/school	2.6%
8.	Safety	1.3%
9.	No other way to get to work	6.4%
10.	Work hours/work schedule	11.5%
11.	Not being dependent on others	6.9%
12.	Want to get home in an emergency	0.7%

13.	Like to come and go as I please	9.2%
14.	Environment (reduce pollution/save energy)	1.2%
15.	Stress	1.9%
16.	Incentives offered by employer	0.2%
17.	Enjoy talking to someone/company	1.4%
18.	Other	5.2%
99.	RF/DK	0.8%

9a. Is your commute better, about the same or worse now than it was a year ago? [select one]

1.	Better	17.0%	
2.	Worse	31.2%	(skip to 9c)
3.	About the same	50.1%	(skip to 10)
9.	RF/DK	1.7%	(skip to 10)

9b . How has it gotten better? [select a maximum of 3]

1.	Traffic lighter	23.7%	(skip to 10)
2.	Roadway improvements	10.4%	(skip to 10)
3.	Changed mode	8.4%	(skip to 10)
4.	Moved home/changed job or job location	29.2%	(skip to 10)
5.	Changed commute route	10.9%	(skip to 10)
6.	Commuting at different time	3.4%	(skip to 10)
7.	Less road maintenance work	1.1%	(skip to 10)
8.	Weather improved	0.5%	(skip to 10)
9.	Improved/new transit service	5.8%	(skip to 10)
10.	Other	6.6%	(skip to 10)
99.	RF/DK	0.0%	(skip to 10)

9c. How has it gotten worse? [select a maximum of 3]

1.	Traffic heavier	70.2%
2.	Construction delays	3.9%
3.	Changed mode	1.4%
4.	Moved home/changed job or job location	5.4%
5.	Changed commute route	1.5%
6.	Commuting at different time	1.9%
7.	More road maintenance	1.3%
8.	Weather worse	0.4%
9.	Transit more crowded/slower	8.2%
10.	Lack of roadway improvements	1.1%
11.	Traffic lights	0.7%
12.	Other	2.8%
99.	RF/DK	0.0%

10. About how many miles do you travel to work one-way? _____ mean = 16.6 miles

11. How many minutes does your commute to work take door to door? _____
mean = 30.2 minutes

12a. Have you heard or seen any advertisements for diamond lanes, also know as carpool or HOV lanes?

1.	Yes	64.2%	
2.	No	35.7%	(skip to 12c)
9.	RF/DK	0.2%	(skip to 12c)

12b. Where did you hear or see the advertisement?

1.	Radio	6.6%
2.	Billboard	4.4%
3.	Television	6.0%
4.	Newspaper	7.1%
5.	Freeway signs	69.0%
6.	Ads on buses	1.2%
7.	At work	0.9%
8.	Magazine	0.2%
9.	Other	0.4%
99.	RF/DK	4.3%

12c. Is there a special diamond lane that can be used only by carpools, vanpools and buses, along your route to work?

1.	Yes	41.6%	
2.	No	56.6	(skip to 13)
9.	RF/DK	1.8%	(skip to 13)

12d. Do you regularly use the diamond lane to get to work?

1.	Yes	22.3%	
2.	No	77.65	(skip to 13)
9.	RF/DK	0.1%	(skip to 13)

12e. Does the diamond lane save you time in getting to work?

1.	Yes	85.1%	
2.	No	14.9%	(skip to 12g)
9.	RF/DK	0.0%	(skip to 12g)

12f. How many minutes? _____ mean = 16.2 minutes

12g. Did the diamond lane influence your decision to [carpool or vanpool or ride transit]?

1.	Yes	59.5%
2.	No	40.1%
9.	RF/DK	0.3%

12h. Would you continue to [carpool or vanpool or ride transit] **if the diamond lane did not exist?**

1.	Yes	9.3%
2.	No	64.4%
3.	Not Sure	26.3%
9.	RF/DK	0.0%

13. What is the zip code where you live? _____

[» ask 14 only if they do not know their zip code in 13 «]

14. What city do you live in? _____

15. How long ago did you last change your residence?
_____ years, or _____ months mean = 7.7 years

16. What is the zip code where you work? _____

[» ask 17 only if they do not know their zip code in 16 «]

17. What city do you work in? _____

18. How long ago did you last change your work location?
_____ years, or _____ months mean = 5.9 years

19. Is there free all-day parking at or near your worksite?

1.	Yes	78.0%
2.	No	21.3%
9.	RF/DK	0.7%

20. Does your employer encourage employees to use transit, carpool, bicycle or walk to work?

1.	Yes	38.5%
2.	No	58.8%
9.	RF/DK	2.7%

21a. As part of your employment, do you have the opportunity to work at home instead of going to your regular place of work?

1.	Yes	20.7%	
2.	No	79.2%	(skip to 22a)
9.	RF/DK	0.1%	(skip to 22a)

21b. Approximately how many days per month do you work at home instead of at your regular place of work? _____ mean = 6.6

21c. Would you say you make more, fewer, or about the same number of trips with your car on days that you work at home? [select one]

1.	More	8.0%
2.	Fewer	59.4%
3.	Same	21.3%
9.	RF/DK	11.2%

[» questions for primary mode = drive alone only «]

22a. Have you ever carpooled, vanpooled or used transit to get to or from your current job?

1.	Yes	33.8%
2.	No	65.8%
9.	RF/DK	0.4%

22b. Why don't you carpool regularly? [select a maximum of 3]

1.	Takes too much time	7.4%
2.	Desire privacy	2.5%
3.	Need vehicle during work	8.3%

4.	Need vehicle before/after work	3.5%
5.	Transport children	3.0%
6.	Safety	0.3%
7.	Work irregular hours	27.0%
8.	Work overtime	2.0%
9.	Prefer to drive alone	9.0%
10.	Can't find carpool or vanpool partners	28.4%
11.	Never considered carpooling	2.5%
12.	Need car in case of emergency	0.6%
13.	Other	1.7%
99.	RF/DK	0.0%

22c. Why don't you take transit regularly? [select a maximum of 3]

1.	Takes too much time	23.2%
2.	Desire privacy	1.2%
3.	Need vehicle during work	8.2%
4.	Need vehicle before/after work	4.2%
5.	Transport children	2.9%
6.	Safety	1.0%
7.	Work irregular hours	13.4%
8.	Work overtime	0.5%
9.	Transit unreliable	14.3%
10.	Prefer to drive alone	7.9%
11.	Cost/ too expensive	1.6%
12	No service available on my commute	13.2%
13	Never considered using transit	3.6%
14.	Need car in case of emergency	0.7%
15.	Other	2.7%
99.	RF/DK	0.0%

23. How possible would it be for you to carpool at least one or two days a week? Would it be . . .
[read choices; select one]

1.	Very possible	8.6%
2.	Somewhat possible	10.1%
3.	Slightly possible	16.9%
4.	Not at all possible	63.1%
9.	RF/DK	1.3%

24. How possible would it be for you to use transit at least one or two days a week? Would it be . . .
[read choices; select one]

1.	Very possible	6.4%
2.	Somewhat possible	6.1%
3.	Slightly possible	16.9%
4.	Not at all possible	73.9%
9.	RF/DK	1.3%

25. How possible would it be for you to bicycle all or part of the way to work at least one or two days a week? Would it be . . . [read choices; select one]

1.	Very possible	7.1%
2.	Somewhat possible	4.6%
3.	Slightly possible	6.8%
4.	Not at all possible	80.9%
9.	RF/DK	0.6%

26. Would you be willing to take a carpool passenger on a full or part-time basis if it increased your travel time by less than 5 minutes?

1.	Yes	45.1%
2.	No	51.9%
9.	RF/DK	3.0%

[» questions for all respondents «]

27. Are you aware of a free service that gives you a list of people with similar commutes for you to carpool with?

1.	Yes	39.2%
2.	No	60.4%
9.	RF/DK	0.4%

28a. Have you ever heard of a toll-free rideshare number such as (800) 755-POOL [» for Solano and Napa counties: (800) 53-KMUTE «]?

1.	Yes	55.6%	
2.	No	43.9%	(skip to 30a)
9.	RF/DK	0.55%	(skip to 30a)

28b. Have you ever contacted (800) 755-POOL [» for Solano and Napa: (800) 53-KMUTE «]?

1.	Yes	11.6%
2.	No	88.2%
9.	RF/DK	0.1%

[» Qs 29a and b for Contra Costa County respondents only «]

29a. Have you heard of the Contra Costa Commute Incentive Program?

1.	Yes	14.3%	
2.	No	83.6%	(skip to 30a)
9.	RF/DK	2.1%	(skip to 30a)

29b. Can you describe what the Contra Costa Incentive Program is? [select all that apply]

1.	No	40.5%
2.	Vanpool	16.7%
3.	Transit tickets	7.1%
4.	Carpool (script)	7.1%
5.	Guaranteed Ride Home	4.8%
6.	Other	19.0%
9.	RF/DK	4.8%

[» questions for all respondents «]

30a. Have you ever heard of the transit and traffic number 817-1717?

1.	Yes	10.7%	
2.	No	88.2%	(skip to 31a)
9.	RF/DK	1.1%	(skip to 31a)

30b. Have you ever contacted 817-1717?

1.	Yes	31.6%
2.	No	68.4%
9.	RF/DK	0.0%

31a. Have you ever heard of an organization called "RIDES for Bay Area Commuters" [» for Solano and Napa counties: "Solano Commuter Information" «]?

1.	Yes	34.6%	
2.	No	63.5%	(skip to 32a)
9.	RF/DK	2.0%	(skip to 32a)

31b. How did you hear of RIDES for Bay Area Commuters [» for Solano and Napa: "Solano Commuter Information" «]? [select a maximum of 3]

1.	Employer event	13.3%
2.	Community event	1.9%
3.	Friend/co-worker	14.2%
4.	Freeway sign	15.1%
5.	Direct mail	4.0%
6.	Employer survey	1.4%
7.	Saw vanpool	3.8%
8.	Transit agency	3.1%
9.	Local city/agency	1.8%
10.	School	0.8%
11.	Media	35.1%
12.	Other	2.0%
99.	RF/DK	0.0%

[**»** Qs. 32a and b Solano County interviews only **«**]

32a. Have you ever heard of Solanolinks?

1.	Yes	39.2%	
2.	No	60.2%	(skip to 33a)
9.	RF/DK	0.5%	(skip to 33a)

32b. Can you describe what Solanolinks is? [select one]

1.	No, not sure	24.7%
2.	New bus service	31.5%
3.	Name for all Solano bus services	8.2%
4.	Name for intercity or commuter Solano bus services	24.7%
5.	Other	5.5%
9.	RF/DK	5.5%

33a. Do you have regular access to the Internet?

1.	Yes	71.1%	
2.	No	28.9%	(skip to 34)
9.	RF/DK	0.0%	(skip to 34)

33b. Are you aware of transit, carpool or traffic information available via the Internet?

1.	Yes	35.0%	
2.	No	64.5%	(skip to 34)
9.	RF/DK	0.5%	(skip to 34)

33c. How often do you access this information? Is it . . . [read choices; select one]

1.	Three or more times per week	8.6%
2.	One to two times per week	5.3%
3.	Less than once per week	25.6%
4.	Never/rarely	60.2%
9.	RF/DK	0.3%

34. Do you always, sometimes or never have a vehicle available for getting to work?

1.	Always available	86.4%
2	Sometimes available	6.6%
3.	Never available	6.8%
9.	RF/DK	0.2%

35. How old are you? Are you . . .

1.	Less than 20	2.5%
2.	20 to 29	17.8%
3.	30 to 39	29.4%
4.	40 to 49	27.7%
5.	50 to 59	16.7%
6.	60 or older	4.9%
9.	RF	1.0%

36. And what is your combined annual (before-tax) household income? Is it . . .

1.	Under $20,000	5.3%
2.	$20,000 to $34,999	11.0%
3.	$35,000 to $49,999	15.0%
4.	$50,000 to $64,999	13.1%
5.	$65,000 to $79,999	11.1%
6.	$80,000 to $100,000	10.1%
7.	More than $100,000	18.9%
9.	RF/DK	15.6%

37. Gender of respondent: [Do not need to ask]

1.	Male	50.6%
2.	Female	49.4%

Those are all the questions I have for you. Thank you very much for participating.

Appendix B

DEMOGRAPHIC VARIABLES AND MODE

This appendix compares information on age, gender, and household income with commute mode.

Table 27

AGE AND COMMUTE MODE

	Drive Alone	Carpool	Transit	Other	Total
Younger than 20 *(2.5% of respondents)*	42.4%	31.5%	21.7%	4.3%	100%
20 to 29 *(17.9% of respondents)*	62.1%	15.6%	16.4%	5.8%	100%
30 to 39 *(29.7% of respondents)*	66.3%	17.4%	12.7%	3.6%	100%
40 to 49 *(27.9% of respondents)*	67.6%	14.3%	13.8%	4.3%	100%
50 to 59 *(16.9% of respondents)*	73.4%	9.5%	13.5%	3.6%	100%
60 or older *(5.0% of respondents)*	75.7%	10.5%	11.6%	2.2%	100%
Regional Average *n=3,633*	66.9%	14.9%	14.0%	4.2%	100%

Table 28

GENDER AND COMMUTE MODE

	Drive Alone	Carpool	Transit	Other	Total
Male *(50.6% of respondents)*	69.7%	12.7%	12.8%	4.8%	100%
Female *(49.4% of respondents)*	64.1%	17.1%	15.3%	3.5%	100%
Regional Average *n=3,669*	66.9%	14.9%	14.0%	4.2%	100%

Table 29

HOUSEHOLD INCOME AND COMMUTE MODE

	Drive Alone	Carpool	Transit	Other	Total
Less than $20,000 *(6.3% of respondents)*	50.5%	15.3%	29.1%	5.1%	100%
$21,000 to $35,000 *(13.0% of respondents)*	65.2%	11.7%	18.9%	4.2%	100%
$36,000 to $50,000 *(17.7% of respondents)*	64.7%	14.2%	17.3%	3.8%	100%
$51,000 to $65,000 *(15.6% of respondents)*	71.2%	12.9%	11.8%	4.1%	100%
$66,000 to $80,000 *(13.1% of respondents)*	70.8%	15.2%	10.3%	3.7%	100%
$81,000 to $100,000 *(11.9% of respondents)*	66.5%	21.9%	8.4%	3.2%	100%
More than $100,000 *(22.4% of respondents)*	69.6%	14.4%	12.4%	3.6%	100%
Regional Average *n=3,099*	66.9%	14.9%	14.0%	4.2%	100%